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ORIGINAL ARTICLES.

A STUDY OF THE ILL EFFECTS OF TOBACCO ON THE THROAT AND NOSE.

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Early in my professional career I attended Mr. McG., a stout, middle-aged man, who died from the abuse of tobacco in smoking and chewing. The history of this terrible case was briefly as follows: He was a brass-finisher by trade, and purposely taught himself to use tobacco, under the belief that it was a prophylactic against the harmful vapors unavoidably inhaled in that occupation. From the moderate use of tobacco, he gradually drifted into the slavish habit of chewing and smoking strong plug tobacco all the time, except for a period of about four minutes taken for breakfast, five and a quarter minutes for dinner, and three and a third for supper, even sitting up in bed several times every night to chew or to whiff his favorite short-stem clay pipe.

The result was that in the course of time a warty-looking pimple or growth formed under the tongue, just posterior to the sublingual glands, which gradually enlarged, ulcerated and formed a deep sulcus at the root of the tongue, which mass gradually enlarged and became more and more malignant, until every fibre and every papilla of the tongue became diseased and enlarged to such a degree that the horrid swollen mass protruded from the mouth, with its tip and anterior third fissured and angry.

The gums became red, scurried, and unusually separated from the teeth, many of which loosened and fell out; his breath was loaded with fetor; the lumen of the

throat was enroached upon; deglutition became more and more difficult, and was finally impossible, which caused a constant dripping of saliva, resembling ptyalism. The glands of the neck, both anterior and post-cervical on both sides, next became infiltrated and enlarged, but luckily did not ulcerate; after he could not swallow, his adipose tissue was completely absorbed, his muscles all wasted, and he became fearfully emaciated, with complexion bronzed, eyes sunk, and entire countenance hideously distorted; his blood was no longer fully oxygenated, his breathing became asthmatic, and, added to all else, he could speak with only a pitiful, inarticulate sound, and finally, after protracted, unappeasable torture, death came to his relief October 11th, 1886, in his fifty-fourth year.

Microscopic examination of a section of the sublingual mass revealed the fibrous stroma and the characteristic alveolar structure and the epithelial cells of cancer.

His death certificate should have been *Tabaci felo de se*, effected by impregnating the glands of the tongue, mouth and throat, by an almost continuous application of the juice and smoke of King James' "baneful weed."

Encountering this case so soon after the death of General Grant, in July, 1885, I directed my attention early in practice, to the harm that may flow from the abuse of tobacco, and since adopting a specialty that brings me into constant contact with

the throats and noses of smokers and chewers of every age and physical condition, I have continued in this enlarged field to note its effects on these parts, and while I fain would be neither a bigot nor a partisan in any tobacco controversy, I shall in this paper attempt to sum up the results of my study and experience.

Smoking and chewing, like malaria, alcohol, coffee, tight-lacing, late hours, high-heeled French shoes and other debatable agents, do not affect all alike, and some devotees suffer so little from their use and, within certain limits, even from their abuse, as to be practically exempt from harm.

I know a man whose pipe is seldom out of his mouth except when he is eating or sleeping; and another who lights one cigar by the stump of another all day except when he is eating, who, when he is where he cannot smoke, is chewing, and habitually sleeps with a quid in his mouth, without any appreciable injury; and each of you knows robust and healthy lovers of the weed, leading active out-door lives, who can smoke and chew any and every kind of tobacco, good or bad, with apparent impunity.

But, notwithstanding such exceptions, I am fully convinced that, as a rule, the majority of all who chew constantly or smoke more than two or three cigars, or pipefuls of tobacco a day, venture on dangerous ground.

For these reasons I would divide the patrons of tobacco into three classes: 1st. Those strong and healthy persons who can use it, and, within certain limits, abuse it too, without injury; 2nd. Those who can use it in moderation, with little or no discernable injury, but suffer if they abuse it; and 3rd. Those to whom tobacco is toxic, who must suffer if they attempt to use it in any way at all.

The last two classes fall within the scope of this paper, and I have seen so many distressed conditions of the upper air-passages created or made worse by it, that I have little hesitation in attributing the existence of a considerable proportion of important throat and nasal diseases that increase, or remain obstinate, to the use of tobacco by these two classes.

We all know that nicotine and the dark-brown empyreumatic oil produced in burning, are tobacco's two most harmful ingredients, and that to this oil is due the

stale, pathognomonic smell of the old pipe and of the stale stump.

Nicotine is present in about two-and-a-half-per cent. in the mildest Havana tobacco, and ranges up to about seven-and-a-half per cent in the strongest Virginia.

Notwithstanding the fact that the properties of tobacco, chemical and physical, differ in chewing and in smoking, and also with the variety—and in smoking, also with the method—yet the pathological action of tobacco on the upper air passages is somewhat the same, no matter in what form its ingredients are brought in contact with them; but as a general rule, smoking is worse, because tobacco burning either in cigar, cigarette or pipe, not only imparts everything natural to tobacco, but also adds the oil and other products of combustion, and discharges them hot into the mouth and upper air passages; and the harder the burning weed is drawn in, the more deeply these go, and thus the hot smoke, impregnated with nicotine and the oil, comes in contact with every part of the throat and nose.

The smoker takes in less of the nicotine, but more of the oil, etc.; the chewer, little or no oil, but more of the nicotine; but, chewing and smoking involve spitting or swallowing the saliva, and both impregnate all the fluids that come into contact with the mucous linings, with tobacco. On the whole, however, I have seen chewing seriously affect as many persons as smoking; but were the mass of smokers to indulge that habit as constantly as the mass of chewers do, its ill-effects on the smoker's air-passages would be much more frequently seen, and we would much oftener find the mucous membranes of the patrons of the cigar, cigarette and pipe, in a thoroughly diseased condition, because these not only keep large quantities of the harmful constituents in continuous contact with the delicate mucous linings of the parts, but also because inferior grades of strong tobacco may be, and are, used in preparing smoking tobacco; and the burning of certain salts of potassium existing in it; and the heavy heated smoke, are all added to its own irritating power.

In chewing, one escapes the empyreumatic oil produced in burning, which would always be terribly toxic to the mouth and upper air-passages were it not for the fact that while smoking there is

an abnormal secretion continually taking place from the relaxed mucous membranes which, although it makes a good vehicle for conveying the nicotine, yet prevents more than a fraction of it from being absorbed by these membranes, the balance being either expectorated or swallowed; and we all know that spitting is a waste, and swallowing these tobacco-tinctured secretions, either to prevent this waste of saliva or because there is no convenient place to spit, is very harmful to the whole economy.

Of course, the one who both smokes and chews risks all the dangers that tobacco can present.

Whether the pipe, cigar or cigarette instills most oil and nicotine, and which is safest to smoke, are also questions of importance. Short pipes, and thick dumpy cigars are most apt to induce cancers, etc., and no habitual smoker should smoke his cigar down to the very end but should throw the last third away, as analysis has shown that the arrested nicotine, nicotianin and empyreumatic oil are there, all thickly accumulated. Using pipes with long stems, and smoking all cigars and cigarettes through smokers, enables the wise to escape much of the poison and heat, and robs smoking of half its harmful powers; and the later in the day one smokes or chews, the less it injures, and the earlier in the morning the smoke or chew is taken, the more it inhibits nerve power and nutritive activity; and, further, no one should shut himself up in a small room at any time, to smoke and create around himself a cloud of nicotine, for an increased amount of poison is then condensed on the delicate mucous membrane of the whole respiratory tract, and is thence taken into the entire system.

Cigarette smoking makes a delicate person's lips and face lose their natural healthy hue quicker than any other mode of using tobacco.

Tobacco is a potent agent that certainly is capable of creating a cachexia that interferes with both growth and repair, and I find that all inflammatory affections and lesions of the throat and nose, and especially those of specific origin, are more persistent and recover more slowly in persons suffering with what I might call scurvy; and not only the specialist, but also the general practitioner, knows how difficult it is to heal lesions, whether spe-

cific or benign, in the mouths, throats, or noses of those who either chew or smoke excessively, or rub snuff; and a scratch, pimple, blister or wart, or a sore lip, mouth, tongue, or throat, may be made cancerous by keeping it bathed in tobacco juice or smoke, especially, if the person is suffering with chronic tobacco intoxication of his system. In fact, it is scarcely possible to heal a sore or ulcer in the mouth, throat, or nose of one who persists in chewing or smoking.

For the same reason, no one with decayed or broken teeth, or dental plates that rub the gums or cut the tongue or mouth, should either smoke or chew, for either of these may be the fatal starting point. I have the records of five cases of epithelial cancer of the lips and tongue, four of which occurred in great smokers. Mrs. General U. S. Grant told me, in 1886, that General Grant's fatal case of throat disease began by his abrading a spot in the pharynx with the rough skin of a peach he was eating, and I have but little doubt that constantly bathing this abraded surface with tobacco smoke and tobacco-laden saliva, while his blood was already drenched and saturated with tobacco poison, did its fatal work for him.

Further, tobacco certainly acts as a depressant to feeble people and lowers their stamina; and such persons with a cancerous diathesis, or a syphilitic taint, or a scrofulous constitution, should not use it in any form, for in all such subjects the delicate pulpy tissue of the mouth, throat and nose, is very prone to inflammatory action, and also to ulceration from smoking or chewing, and in a large proportion of cases these degenerate into or light up the affection their predisposition or constitution indicates; and, in my opinion, no one who is aware that he has inherited a diseased or weak constitution, or defective vitality, should risk reducing his stamina further, by the use of this agent; and science, in the form of physiology and chemistry teaches, and my experience confirms, that if such an one uses tobacco while growing and maturing, he will not only have a weaker body and a weaker brain, but he will also be much more liable to catarrhal ailments of the upper air-passages; and I am quite sure that all throat and nose specialists will agree that tobacco has a softening and relaxing influence on the mucous membranes of the

mouth, throat and nose, in many who attempt its use, and induces catarrhal and other affections, and that it is unwise for certain varieties of defective people to risk its bad effects.

Neither can persons suffering from any form of neurasthenia smoke or chew without injury, and yet these are the very persons who oftenest have the *furor tabaci*; some smoking innumerable cigarettes, or lighting one cigar after another until they smoke six, eight, or a dozen a day.

Smoking also creates in some persons a persistent, hacking cough, due to tenacious mucus that accumulates in the pharynx and larynx, dependent on a morbid, infiltrated condition of the tissues of the palate and throat, which often degenerates into a condition that closely resembles clergyman's sore-throat, or into diseased throat and post-nasal catarrh combined. I make an emphatic interdiction of tobacco in all such cases.

I am also convinced that in some people there exists a close sympathy between the olfactory and the nerves of the mouth, and that in some the frontal sinuses are also invaded after tobacco excesses, as gravedo and frontal headache often attest.

Besides the classes I have spoken of, whoever else finds that tobacco is injuring him should stop its use; but, unfortunately, many of those it is affecting never realize that it is doing them any harm, attributing all their ailments to other causes.

When tobacco induces a sense of tumefaction, heat and pricking in the throat, it should be let alone; and those whom it occasionally makes sick, and persons with a poor appetite, and those recovering from wasting sickness, are among the ones it injures most.

The habit of swallowing tobacco smoke and then expelling it through the nose, and also of coughing it into the lungs, are both very injurious, as they irritate and dry the mucous membrane of the pharynx, larynx and trachea, and subject them to the various tobacco affections. Blowing it through the nose is also harmful, as it is a fruitful cause of the hypertrophic thickening of its mucous membrane, so often discovered in smokers, and the sense of smell is also greatly impaired by smoke-blowing.

I would not be understood to say that tobacco induces these affections only, but

it is chiefly with them that I come in contact.

With feminine smokers and chewers I have had no experience, and with snuff-pinchers and snuff-rubbers but little; but I have encountered two cases of nasal polypi in females due to the use of snuff, which is less astonishing when we remember that all tobacco dust has a notoriously irritating affinity for the Schneiderian mucous membrane.

There is in my mind a strong suspicion that the high degree of injury that follows cigarette smoking is not due solely to the tobacco they contain, but is also due in part to its union with the so-called rice-paper wrappers in combustion; and I would here emphasize that in all smoking, and in chewing, too, much depends on the quality of the tobacco.

I can usually distinguish the oral cavity of the person who carries smoking to excess by the dusky red, velvety, or hyperæmic appearance of the lining of the mouth, throat and nose, and by the throat becoming irritable and hoarse upon every effort in speaking and singing.

Tobacco cautiously used is certainly a charming pleasure in ripe manhood, and a solace in old age, and is rather beneficial than otherwise to thousands of healthy but careworn and toilworn people, and also to tens of thousands of soldiers, sailors and other idle people on whose hands time hangs heavily; and were one to ask me how to get the good out of it without risking the bad, I should advise him, among other things, to avoid smoking another's pipe, for fear of contracting disease,—the largest indurated specific sore I ever saw was on a colored man's lower lip, contracted from another's pipe; also, never to even smoke his own after it had become blackened and oil-soaked, and also never to light a stale stump, or habitually smoke a short stem-pipe.

A cigar-smoker, or a cigarette-holder, or a new or freshly burned clay pipe, in point of safety and cleanliness, is far superior to putting mouth-to-weed in smoking, and one's whole mouth and throat should be thoroughly cleansed with water after every smoke.

Neither striplings with unformed constitutions nor weakly growing youths should venture to either smoke or chew, because in youth the vital centres are all unripe and delicate, and the mucous

membranes are then marvelously hypersensitive to the effects of smoking and chewing; and if a growing boy's or an undeveloped puny youth's mucous membranes absorb either nicotine or the empyreumatic oil of tobacco, it poisons his springs of life and stunts his development mentally, morally and physically; and if he expectorates these poisons, then the loss of saliva lessens the growth and repair of his delicate and easily injured vital centres, and I am positive I have seen more than one unripe devotee stunted in body and mind, and I could at this moment name half a dozen young men and boys who are injuring their throats and noses with cigarettes, who will later in life have granular or follicular pharyngitis, somewhat akin to clergymen's sore-throat, with an annoying discharge of mucus from the posterior nares into the throat, with relaxed tickling uvula, which may hang on for years, and neither get well nor kill, but be an annoyance to himself and to every one around. I know a feeble, narrowed-shouldered young man, who is at this moment cigaretting himself to either the invalid's couch or the grave, through his delicate mucous membranes; and we, as hygienists, can do the weakly ones of the rising generation no greater service than to point out tobacco's injurious effects on their throats, upper air-passages, etc. I have observed but few youths whose sensitive mucous linings could endure tobacco's toxic influence without showing symptoms of weakness, morbidity and disease; and were I to recast our pharmacopeia I would not only call *hyoscyamus* *hensbane*, *aconitum* *wolfbane*, and *arsenic* *ratsbane*, but would be strongly tempted to give tobacco the synonym of *youthsbane*.

If anyone considers this indictment overdrawn, let him stand at Broadway and Baltimore Street, or at Charles and Preston, or at any other spot where he can see a constant stream of passing men, boys and youths, and carefully scan all the immature and sickly devotees who pass with cigar, pipe, cigarette or quid in mouth, and he will soon detect written on many of their faces and figures, the unmistakable signs of tobacco cachexy, some with pale, sharp, wizened visage, round shoulders, shuffling walk and anxious, nervous, tell-tale addresses; others with complexions stained an ugly green or a

dirty yellow or a dusky bronze color, as if their blood were turned to a greenish or yellowish fluid instead of the natural red.

The mouth, throat, and nose of a healthy person have a clean smooth, pale, pinkish or lilac hue. Examine these tobacco mouths, throats and noses, and you will find every part unclean and ugly; probably a mouthful of saliva, as offensive as a bar-room spit-box, that must be either expectorated or swallowed before you can begin to examine; tongue furred, teeth incrustated with a dirty, scurvy-like, greenish deposit; the buccal surface of the cheeks either in a state of active or sluggish congestion; gums, palatine arches, velum palati, pharynx, epiglottis, larynx, Schneiderian membrane, and all the other soft tissues turgid and injected, or velvety, granular, purple with hyperæmia, and streaked with mucus, instead of being a clean natural red.

You will find, however, in this flaccid throng, that all have one set of muscles that are firm and strongly developed, i. e., the muscles of the mouth and lips; made so by the local exercise of grasping the cigar, pipe or cigarette, with jaws, lips and teeth, together with the constant gymnastic motions of chewing and spitting.

Some of this tobacco throng will present cases of *ozena*; others, catarrh of the throat and nasal passages, buccal inflammation, epiglottitis, relaxed and tickling uvula, chronic tonsillitis, laryngitis, trachitis, hoarseness or nasal twang in talking, due to thickening within the larynx, loss or impairment of smell, rotten breath, etc., which can easily be interpreted by the experienced; and I risk nothing in asserting that five-per-cent. of all constant smokers and ten-per-cent. of all constant chewers, and twenty-five per cent. of all who constantly do both, are affected with one or another of these affections, and not thirty-per cent. of immature and sickly smokers' throats and noses will be found in a perfectly normal condition.

I do not think any one can safely use tobacco in any form in boyhood or early youth, and I am sure that smoking before the eighteenth year, and chewing before the nineteenth year, cut off from many a youth half his stamina and lessen all his natural talents and attributes; and I ask you to-day, as anatomists and physiologists, to think of a frail boy, or a callow youth,

who secretes and then ejects half a pint, or a pint of tobacco tinctured saliva daily, while both he and his friends are wondering why he is below par. You know and I know that it is as unnatural and harmful to him, to keep his sensitive absorbents and lacteals bathed in tobacco-tinctured, tissue-altering saliva, either by smoking or chewing, as it would be for a fifteen month's old colt to carry heavy weights on his back; and the delicately constituted youth, who learns to "chaw" because others do, or to show his rough side, or tries to blow as big a cloud of smoke as the other fellow does, is injuring himself mentally, morally, and physically, and although he may not realize it now, yet the day is not far distant when he will know it, and know it with regret.

In conclusion, I believe the majority of those who arraign tobacco, from King James in 1641, down to the Cranks of today, draw their indictments entirely too heavy. Personally, I have little or no

prejudice against the proper use of the weed, either in smoking or chewing. Nor would I dare to say that every votary of tobacco is injured, or is on the road to ruin. Life is short, and every one should get all the rational, harmless enjoyment out of it he can; and while I am perfectly willing to agree that some can use either mild or strong, good or bad tobacco, very freely and experience no ill effects, I am also quite positive that it is highly injurious to the upper air-passages of all youths, and also to numerous adults, and that to some of these the free use of even the mildest and best tobacco is almost akin to suicide; and I think that we as physicians should counsel all growing youths to shun it entirely, and every adult with defective stamina, or a tendency towards any organic disease, or a bias for any cachexy, or an inclination towards any affection of the throat or nose, either to let it alone forever, or to determinedly limit its use to a harmless quantity.

COMMUNICATIONS.

SOME EXPERIMENTS WITH SOMATOSE—A NEW FOOD PRODUCT.

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This preparation is claimed to consist almost entirely of pure albumoses. It is prepared from meat, and is a light yellow powder without marked odor or taste. It is hygroscopic and dissolves completely in hot and cold water. The solution has a faint alkaline reaction, and part of the substance is precipitated by careful neutralization, from which we conclude that there is present a small amount of alkali-albumin. Most of the nitrogenous matter is in the form of albumoses, there being only about 5 per cent. of peptone present.

For practical purposes we may regard the new food-product as a highly nutritious preparation of meat, composed chiefly of albumoses, with a small amount of peptones. Prof. Chittenden has recently published an analysis of Somatose, giving the following as its composition:

Water.....	8.04 per cent.
Solids.....	91.66 " "
Mineral Matter.....	6.95 " "
Total Nitrogen.....	13.90 " "

Matters insoluble in—

80 per cent. Alcohol.....	80.91 per cent.
Albumose.....	70.07 " "
Gelatose and Gelatin Peptone.....	8.03 " "
Peptone.....	5.01 " "

From this exhibition of its composition, and from the well known results of physiological and clinical tests with peptones, we might expect good results from the use of somatose.

Gerlach, Politzer, and others have shown that *fully digested* meat preparations cannot be used long without producing diarrhoea and other digestive disturbances. My own experience has shown that after a few days patients develop a disgust for such preparations and decline to take them. The stomach becomes sick, the breath offensive, and they do not thrive well without other food. The greater the propor-

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tion of peptone in these preparations the less desirable, clinically, are they. This fact has become well known in the peptonizing of milk for infants. They will not thrive on completely peptonized milk, even when they can be induced to take it, and hence, no one now thinks of thoroughly peptonizing milk for infants or invalids. The same is true of the cereals. They agree when partially digested. It is for these reasons that this new preparation has been put upon the market.

The clinical use of this food upon a variety of cases have borne out the expectation derived from its chemical composition.

The cases on which I have tried somatose, included two cases of carcinoma of the stomach, one of phthisis, one of gastric ulcer with dilatation, two of choleraic diarrhoea in infants, with marked collapse, and one of gastro-entefic catarrh (summer diarrhoea).

In all cases the food was well borne and was retained when all other food was rejected. It was noticeable that in several of the cases, where there was complete anorexia, the appetite returned after from one to three days, and then the patients were able to retain and digest other food, rendering the further use of somatose unnecessary. In no case did it produce nausea or diarrhoea. The case of phthisis pulmonalis, above mentioned, was suffering with troublesome diarrhoea, with occasional vomiting at the time of beginning the use of somatose, but there was no evidence of an aggravation of the diarrhoea. The nutritive value of the food could be plainly seen in its effect upon the digestion and blood tension.

The effect upon the heart seemed to be more permanent than that of a stimulant, and I could but regard it as the result of a true nutrient action upon the heart muscle. I would explain its effect upon the digestive organs in the same way, *i. e.*, by its furnishing nourishment to the mucous membrane of the stomach, as well as to the increased general nutrition.

From the limited experience had with it, I do not regard it as suitable for long continued use, but it is especially useful in an emergency, when the digestive organs have failed to appropriate ordinary food, and for this purpose, it has seemed to meet the indications more fully than any of the commercial peptones, or so-

called peptones, tried by me. In three of the adult cases, I compared the effect of somatose with that of some of these peptones, and in each case with marked credit to this preparation.

The trial with infants was confined to two cases of typical cholera infantum, and one of summer diarrhoea, of mild type. All covered.

The first case was a second attack in the same child during the season. This attack was accompanied by convulsions, followed by alarming collapse, high internal temperature and incessant vomiting. The food was begun at about nine in the evening. A half teaspoonful was dissolved in a wine-glass of water and a teaspoonful of this mixture given every half hour during the night. The effect was very gratifying. The restlessness, the rolling of the head from side to side and throwing the arms about had ceased by morning, and natural sleep followed.

The child was then given a mixture of equal parts of milk and water with a half teaspoonful of somatose dissolved in four ounces of the mixture. This was retained and continued for two or three days, when the usual food was resumed. If any part of the treatment of this child saved its life I should give the principle credit to the food.

The second case was less severe, but the result was a rapid recovery. The third case did not return after beginning the food, and I can only say that it recovered without further attention. The one thing that impressed me in both of the above cases of choleraic diarrhoea, was the rapid restoration of the digestive functions, after such a profound disturbance. I have tried to avoid enthusiastic praise of the results obtained in these few cases. So far as they go, they seem to show that we have in somatose a valuable nutriment in cases of great exhaustion and in digestive failure. It deserves a more extended trial.

IN THE CEMETERY.—Tommy—"All these people haven't gone to heaven, auntie."

Aunt—"Hush, Tommy! Why do you say that?"

Tommy—"Because I read on some of the tombstones, 'Peace to his ashes;' and they don't have ashes only where it's very hot."—*Ally Sloper.*

FIBROUS BODIES IN THE TUNICA VAGINALIS TESTIS; WITH A REPORT OF THREE CASES.*

THOMAS S. K. MORTON, M. D.†

I have thought it well to make these remarks upon the subject of fibrous bodies in the tunica vaginalis of the testicle, not only because of the inherent interest of their presence in that locality, but especially to emphasize their significance in determining the method by which the usually coexistent hydrocele shall be treated.

Many excellent text-books ignore the possibility of these bodies existing as a cause or complication of hydrocele, yet three cases have occurred in my practice within two years, and a search of the literature has demonstrated that they are by no means very rare. They may exist singly or in numbers; attached to the tunic or lying loose in the hydrocele sac. In size they vary from a pin-head to half an inch in diameter, although but one case is upon record of the latter dimension. The usual weight is from a fraction of a grain to five grains. In shape these bodies are generally smooth and polished like small beans, but may have become irregular by aggregation of two or more separate formations. A little pit or cup-shaped depression, when existing upon one side, is supposed to represent the vestige of a former pedicular attachment. Le Groux has recorded an instance where the body was cubical. In color they vary from white to dark yellow or red. In consistency, when fresh, they are usually firm and elastic, much resembling fibro-cartilage. When dry they become very hard and stony. These bodies have often been mistaken for bone because of calcification having taken place; in fact, this is a frequent degeneration. Yet some have unquestionably been proved to contain true bone. Usually but one body is found, but as many as five have been discovered in a single hydrocele.

There is reason to believe that loose bodies in the tunic almost invariably take origin from the walls of the sac, and par-

ticularly from those portions of the wall which invest the testicular surface. I have found reference to no case in which other origin has been proved. But, of course, the possibility of inflammatory bodies being formed in other portions of the tunic and being subsequently obtruded into the cavity must be acknowledged, as also must be granted the possibility of blood being effused and afterward becoming agglutinated into a fibrous or calcareous free body. It is likewise a possibility that the fluid of a cyst of the tunica vaginalis might precipitate certain of its contents and thus form the nucleus of a foreign body.

Too many observations are upon record to doubt that very many fibrous bodies take origin from the Müllerian duct and its extremity, hydatid of Morgagni, and from that portion of the tunic in the neighborhood of the junction of the testicle and epididymis. They may be found in the layers of or beneath the tunics or be attached thereto by a pedicle of varying length and breadth. Reclus observes that they may very rarely be hidden in a pocket in the tunica vaginalis with a small opening communicating with the sac cavity—from whence they may be shot out by pinching if not attached by a pedicle. Encysted blood-clots (see Case 11.) may likewise exist in the tunic, but have no opening into the main hydrocele sac.

Usually the bodies under consideration are found in small hydroceles, but rarely in large collections of fluid. It is presumable that many hydroceles are directly caused by the irritating presence of the bodies. Loose and pediculated bodies have also been found where there was no accompanying fluid. They are unknown in early life and are very rare before puberty.

The fluid of small hydroceles containing bodies is apt to be of a yellowish or brownish color and viscid consistency, and even a bloody effusion may be present. Signs of recurrent or chronic inflammation, such as thick walls, fibrous bands passing between various portions of the interior of the sac, and perhaps multi-

* Read before the Philadelphia County Medical Society, January 10, 1894.

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loculation due to fibrous inflammatory webs closing off portions of the vaginal wall, are often found to coexist with these peculiar bodies, especially where tapping or attempts at radical cure by irritant injections has been previously resorted to.

Upon section the bodies are generally found composed of concentric fibrous layers. These layers may be separated by colored lines due to deposit of blood pigment. The centre has occasionally a solid fibrous or calcareous nucleus; again, it may contain fluid or simply a dry cavity. The fluid, when present, may originate from the cystic interior of an hydatid of Morgagni or be derived from a blood-clot. Bodies have also been found completely calcified. It is possible for them to originate as true dermoid cysts or to have elements of such inclusive remains for a nucleus. Thus Lange has reported a case in which he found two long hairs growing from a hydrocele sac, and others have recorded true dermoid cysts as well as free portions of true bone and cartilage in connection with hydroceles.

The ultimate derivation of these bodies, which for want of a better name have been termed "loose," "fibrous," or "strange," is of great interest and has received much thought from the time of Morgagni, who first observed, described, and named them, down to the present. The Cohnheim theory of inclusion of foetal tissues is at present the most widely accepted theory of the origin of the true "loose" bodies. Other varieties of bodies result from inflammatory deposits in the layers of the sac; almost always in the neighborhood of the globus major. These undergo fibrous and perhaps calcareous degeneration, become pediculated, and ultimately float free in the hydrocele upon rupture of the pedicle. Another method of origin is the formation of fibrous projections from the tunica vaginalis in the form of small papillomata of the endothelium, which later may become pediculated and subsequently free. This is the multiple variety, of which great numbers may be present. Blood-clot and other direct precipitations may, as has been said, originate another variety of the bodies. There are many instances recorded where the tunics or underlying tissues have become infiltrated through inflammation, senility, etc., with fibrous or calcific

plaques. This variety alone may contain bloodvessels. Here pediculation or desquamation into the hydrocele sac rarely takes place, especially if the albuginea is involved. Sir Joseph Fayer speaks of this variety as of not infrequent occurrence in India, where hydroceles are prone to have very thick walls.

The symptoms indicating the presence of bodies in a hydrocele are vague and uncertain. But when a small cyst is present, giving rise to a sense of heaviness and originating unusual pain, and, moreover, if the walls are thick, or failure to cure by irritant injection has taken place, or if great pain or inflammation has followed tapping, the presence of bodies may be suspected. Free bodies might be observed by the light test, but owing to the usual position of attachment to the testicle it will generally fail. A careful study of the cyst by means of the recently devised electric hydrocele illuminator of Otis would certainly facilitate the search if the walls were translucent and the fluid clear.

Granting the presence of one or more bodies, it is probable, if not positive, that nothing short of incision of the sac and their removal will prevent recurrence of the hydrocele. My strong individual preference, as elsewhere stated at length,¹ in the treatment of such hydroceles is to split the sac to its full length, remove the bodies, curette any additional cysts, suture the edges of the sac to the edges of the wound margins, and pack with iodoform gauze until healing by granulation takes place.

CASE I. An Italian, aged thirty-seven years, was brought to me at the Polyclinic Hospital by Dr. J. M. Malatesta. He stated that he had had a swelling of the left testicle for several years, and that it had been twice operated upon in Italy—whether it had been injected he did not know. Pain and a sense of weight were marked features of the case. No light could be seen through the swelling.

In view of the previous failures, the painfulness of the tumor and its failure to transmit light, I determined to incise the cyst and investigate. An incision to the whole length of the sac was made and its walls found to be very tough and thick. the contents presented the usual appear-

¹ Philadelphia Polyclinic, September, 1892.

ance of hydrocele fluid. The sac was then inverted by turning the testicle out and the latter organ found to be attached to the base of the tunica vaginalis by firm adhesions which were honeycombed by a great number of subsidiary cysts varying from the size of a shot to that of a large pea. These small cysts were grouped mostly about the globus minor and body of the epididymis, but appeared to have no communication therewith. There were also found on the lower portion of the visceral layer of the tunica vaginalis in the same neighborhood several small calcareous tumors, the largest weighing two grains and well pediculated—about half a dozen in all. They sprang directly from the tunic, and the largest could easily have been broken from its pedicle and become a loose body in the cyst.

The small cysts were all split and curetted out, the foreign bodies removed by scraping, the sac edges sutured to the wound margins, the cavity of the tunica vaginalis stuffed lightly with a strip of iodoform gauze, and an antiseptic dressing applied over all. On the second day the packing was removed, the cavity washed out with peroxide of hydrogen first and with 1:2000 bichloride of mercury solution afterward and the packing replaced. This was repeated every second day until ten days had elapsed, when the cavity had become obliterated by granulations. The wound edges now rapidly cicatrized and approximated. At each subsequent dressing the line of granulations marking the wound were touched with stick nitrate of silver until complete healing was secured. On the fourteenth day he resumed his occupation, and on the twenty-fourth day after operation the last granulation had closed over.

This case illustrates bodies of inflammatory origin.

CASE II. German, aged fifty years. Small hydrocele that had existed some years. Pain and weight were prominent symptoms. Transmitted light. Upon incision several cyst-like, somewhat pediculated growths from the tunica vaginalis in the neighborhood of the globus major on the testicular surface were observed. These were in turn cut off by dividing the pedicle with scissors. Free hemorrhage of venous character took place from the pedicles, but ceased as soon as the usual iodoform-gauze packing was

inserted. The case promptly recovered and was afterward free of his former painful sensations. The growths proved to be blood-clots undergoing fibrous changes encapsulated by layers of the tunica vaginalis.

CASE III. A Russian, aged thirty-eight years. Hydrocele of one year's duration. Much pain, uneasiness, and sense of weight in scrotum. Thinking it a rupture, he has been wearing a truss for some months. Tumor quite small and transmits light freely. Upon making the usual incision a free fibrous body two lines by three lines in diameter, of flattened globular shape, was discovered at the base of the sac. Fluid was straw-colored and amounted to about three ounces. The lining membranes were apparently healthy. Spasm of the dartos in this case prevented immediate packing with iodoform gauze and caused obstruction of the testicle. This necessitated temporary suturing of the wound surfaces across the testicle in addition to stitching the sac to the wound on each side of the incision. In twenty-four hours the dartos had relaxed and the skin sutures were cut and the packing placed in the much-contracted sac. Prompt and satisfactory obliteration of the sac resulted and the man became entirely relieved of his distress.

This case probably was one of true fibrous or loose body originating from the hydatid of Morgagni or foetal remains.

CONCLUSIONS.—1. Probably fibrous bodies are more frequently present in hydroceles than has been suspected.

2. Probably they rarely originate by hydroceles.

3. Probably their presence occasionally prevents the radical cure of hydroceles by irritant injections.

4. Fibrous bodies are to be suspected in small, painful hydroceles—particularly those which have promptly recurred after irritant injection or where excessive pain or inflammation or both have succeeded the injection.

5. That when the bodies are present nothing short of their removal by incision and through exposure of the interior sac will give relief.

6. That the possibility of their presence is an additional and strong argument in favor of the only thorough and certain radical cure for hydrocele, namely, incision and packing with iodoform.

THREE SUCCESSFUL CASES OF VAGINAL HYSTERECTOMY.

W. H. WATHEN, M. D., LOUISVILLE, KY.

I will exhibit three uteri removed by vaginal hysterectomy for malignant disease beginning in the cervix, two of which I removed last week. The first was removed a little over a year ago and the woman is now in perfect health with no local evidence of any recurrence. I exhibit this specimen because of that fact, and because it shows a more limited extension of disease than the other specimens.

The disease was limited to the posterior lip of the cervix and the vaginal walls for a half inch, necessitating cutting about three-quarters of an inch behind the cervix nearly to the bottom of Douglas' pouch to remove all the diseased structures. The cancerous disease was curetted away as well as possible before extirpation of the uterus. There was nothing unusual in the operation, but ten days afterward the nurse in giving a vaginal douche injected a pint of bichloride solution into the peritoneal cavity. I do not know the exact strength, but it must have been about 1-3000. This caused practically no trouble and the woman made an excellent recovery. But it impressed upon me the importance of avoiding vaginal injections after vaginal hysterectomy, unless we have, by suturing, positively closed the vault and united the peritoneal surfaces if such can be done. I have since had evidence in corroboration of this fact. I recently removed the gauze forty-eight hours after the operation and the omentum came down to the vulva. This was cleansed and returned with no trouble resulting. I do not believe vaginal injections will do any good and they may do much harm by getting into the peritoneal cavity, forcing necrosed and possibly poisonous structures in contact with the peritoneum. I depend upon drainage by gauze, and when this is removed wash the external parts and entrance to the vagina carefully; then with forceps use dry gauze and wipe out the vagina up to its vault; then re-introduce gauze, leaving to drain. By following this method I have had no trouble, and in fact I have not had for a long while any unfavorable symptoms, the patients going on to an uninterrupted recovery.

No. 2. This is a specimen I removed yesterday one week ago. The woman is now begging me to allow her to sit up; the pulse has remained normal, and I presume the temperature has also, because she has had so little evidence of fever that the nurse has not taken the temperature. She has had no distension of the abdomen and not the slightest evidence of sepsis. In this case you will observe that the disease involved the cervix extending up to the fundus of the uterus, which, of course it was impossible to determine until the operation was done and the uterus cut open. All diseased tissues were taken away by dividing the vagina beyond the diseased line.

No. 3. In the third specimen you will observe that the disease does not extend into the body of the uterus, but is limited to the neck going up to the internal os; still there was decidedly more destruction of the cervix than in the case where it extended into the body, showing that we are unable by any examination to detect how far the disease extends. If we do a high cervix amputation, as is advocated by a few of our good operators, we cannot know whether we have removed all the disease, and the only way of being positive that we do is by total extirpation, which is as easily done as the high cervix operation, and with an experienced operator very little more dangerous, for the immediate mortality of extirpation of the uterus is now with the best men very low—probably not exceeding five or six per cent.

About two and a half years ago I had the misfortune to lose a patient after vaginal hysterectomy, the result of sepsis, evidently conveyed to the peritoneum from the cancerous tissues upon the cervix. I immediately recognized the necessity of removing all necrosed tissues before the operation, so as to avoid the danger of sepsis from that cause, and also the possible danger of cancerous infection of the cut surfaces. Two or three days before the time appointed to perform the hysterectomy I gave an anæsthetic and thoroughly curetted the cervix and the uterine cavity with bichloride solution and tamponed with gauze. After the patient is on the

operating table, having been thoroughly prepared by general baths and vaginal douches, and the vulva having been shaved, the vulva and vagini are again washed with soap and warm water, cleansed with bichloride solution, and the curettage repeated.

I will not go into the details of the operation further than to say that I use my hysterectomy forceps and clamp the ligaments. The forceps are removed within from thirty-six to forty-eight hours, though probably they might be removed without danger in twenty-four hours.

As I have stated, the last two patients

have no untoward symptoms, and are now past the danger line; and while they will recover from the immediate effects of the operation, only time will demonstrate whether they will be permanently relieved, and if not, how long before there will be a recurrence of the disease. It has been my experience that nine-tenths of the cases of malignant disease that consult me are beyond operative measures, the disease having extended to structures that cannot be removed or caused general infection. Those cases where the disease arises in the body of the uterus, if treated early, are more favorable in permanent results.

THE TREATMENT OF DIPHTHERIA.*

G. BENSON DUNMIRE, A. M., M. D., PHILADELPHIA, PA.

There is, perhaps, no subject at this time exciting more and deeper interest in the profession, certainly there is none more important than the management of cases of diphtheria. In this connection some general remarks seem necessary with reference to the ravages of the disease. The excess of deaths over births, which is depopulating the French nation to-day, is largely due to diphtheria. In England it is not confined to the large cities alone, but the rural districts are feeling its scourge.† The same may be said of the United States, where there is a growing dread of the disease and justly so, because of the gradual increase of cases, and deaths as well, which quite an extended correspondence with the different State Boards of Health, also the mortuary registers show, conclusively proving two things: 1, its infectiousness; 2, that the general efforts now put forth to stay its progress are inadequate.

As to its infectiousness in man, this has long since been settled in the affirmative and the question now is, what creature is not subject to the disease? since flying fowl, creeping beast, as domestic animals or pets, are susceptible, and, like flies, have the credit of conveying the disease. The cat's ability to contract and transmit diphtheria to persons has long been obser-

ved.‡ Animal susceptibility to inoculations with diphtheria exudate and cultures of the same, has frequently been utilized; making them the experimenting ground by which important data have been obtained; settling the question as to whether diphtheria is primarily a local or a constitutional disease, in favor of the former. This has been proven by the elaborate investigations of Wood and Formad, Klebs, Löffler, Abbott, Welch and many others. But for the specific cause of the contagion we are indebted to Löffler for his discovery of the diphtheria bacillus, which bears his name. And no less important are the investigations of Abbott and Welch, who have established the fact that in the Löffler bacillus, we have the etiology of diphtheria, a factor of paramount importance in regard to its rational treatment and prophylaxis, again to be referred to.

With reference to the present effort not being adequate to stop the progress of the disease, we have to say that while this is true generally throughout the States, we are glad for one single exception which stands out conspicuously and alone, and is worthy of our respect and emulation. We have reference to Michigan and its State Board of Health, backed as it is by legislative enactments, not only requiring

* Read in the Section on Diseases of Children, American Medical Association, 1894.

† Thorne Thorne's Work. England.
‡ Noah Webster's Epidemic and Pestilential Diseases.

scientific investigative of disease and tabulating the same, but by an enforced system of isolation and disinfection, which has reduced, in 1889, the average number of cases per outbreak from 11.66, in which isolation and disinfection was neglected, to 1.56 when it was enforced, and deaths were reduced from 2.65 to .22,[§] showing very plainly that the disease cannot only be controlled, but that there is a possibility of stamping it out entirely. Until other States are guided by the State of Michigan, they will continue to write large bills of mortality; which brings us to the vital question of

ISOLATION.

In the management of cases of diphtheria, after what has been said it seems unnecessary at this date and time to do more than refer to the excellent restrictions and preventions, even to minute details, issued and gratuitously furnished by a number of the State and local Boards of Health. But the great necessity is to have *enforced isolation*. Isolation, if not efficient, is no isolation at all. For instance, to quarantine the house is not isolation, when there is only a board fence or a wall to scale, between the quarantine and coveted liberty. Neither is it isolation, even against the physician's protest, for a mother of a poor family to separate and nurse one of her children sick with diphtheria in a down stairs, badly ventilated room, from the vitiated atmosphere of which she emerges to supply the others with the food which the husband is compelled to be absent to provide; for soon the whole family becomes a prey for the disease. To meet such an emergency one of two things is necessary; a nurse must be provided by the health authorities, or the patient removed to a hospital adapted especially for contagious cases. Hence the great need for the latter, and provision for the former. Therefore, to have efficient isolation we must have the State's legal enactments and popular support, as well as public and private cooperation, all of which will follow in the wake of an enlightened judgment and a just appreciation of the great responsibility which one individual owes to another, and the public at large.

In view of the importance of isolation,

[§] Restriction and Preventions of Diphtheria. Michigan State Board of Health. Printed 1892.

as well as the trouble and inconvenience attending, the questions arising, What cases shall we isolate, and how shall we discriminate? are immediately forced upon us. Some cases of sore throat having an exudate are contagious and some are not. Under such circumstances it is always safe, particularly during an epidemic, to look upon all such with suspicion and treat the same as diphtheria, at the same time securing some of the exudate for microscopic examination, to determine as early as possible its true character.

The Klebs-Löffler bacillus is the only micro-organism always and persistently present in the exudate which, if found, establishes the diagnosis. To do this satisfactorily will require a microscope with a one-twelfth oil emersion objective, and in some cases the bacillus may be detected by simply straining from one-half to three-fourths of an hour a film of exudate previously spread on a cover-slip in a 2 per cent. aqueous solution of gentian violet, wash in a 5 per cent. solution of acetic acid, then in distilled water, dry in air and mount, preferably, in Canada balsam.* This plan, however, may be confusing just at a time when it is desired to be positive. To establish which, the inoculation of a culture fluid with a portion of the exudate will be necessary, which after about eighteen hours in the incubator, if successful, will under the microscope reveal the character of the bacillus, which culture, if desired can be used to ascertain its pathogenic properties by inoculating a rabbit or guinea pig. If the practitioner is fortunate enough to possess a good microscope, culture incubator and other appliances, he may possibly settle the question in doubtful cases. If not he should send a sample of the exudate on clean, white paper, securely bottled, to a competent bacteriologist, who can in twenty-four hours determine its nature. Every Board of Health should have such a salaried appointee to carry out such investigations. It having been determined that the case is one of diphtheria the patient is isolated, if he has not already been, in the upper story of the house which has been previously cleaned and divested of all drapery, upholstery, carpets and everything excepting the barest necessities for the proper

[Annual address on the Causation of Diphtheria, by Wm. H. Welch, M. D. Transactions of Medical and Chirurgical Faculty of Maryland.

* Löffler's Method.

care and comfort of the patient, and at the disposal of the attendants, for more than one will be required in severe cases.

They should be furnished with one or more large pails containing a 1-1000 disinfecting solution of corrosive sublimate, into which bed linens and garments of whatever character should be immersed before taken from the room. Being free from the rattle of tin, two marked papier-maché basins, one to contain the disinfecting solution before mentioned, as the best in our judgment, and the other for water convenient for the attendant's ablutions after necessary contact with the patient. Two or more covered chamber buckets, one always near containing a quart or more of a solution of chlorinated lime in strength of half a pound to a gallon of water, for the reception and disinfection of alvine dejections and promptly removed from the room, but allowed to remain in the bucket two or more hours before emptying into the closet. In this connection there should be a liberal supply of towels and soap with a view to the absolute cleanliness of the person and the surroundings. A spitting cup containing an 8 per cent. solution of carbolic acid to receive the secretions and expectorations from the mouth, throat, lungs and nose; or a better plan is to receive such material on soft muslin rags, toilet paper or small squares of cheese cloth, immediately burned. Hence, the necessity in the room of an open grate, or stove, in which such expectorations can be cremated. Such secretions being the most infectious, because containing the diphtheria bacillus, should be most carefully guarded and utterly destroyed. In absence of an ordinary stove, a gas or perhaps the objectionable coal oil stove, on which, with a view to prevent dryness of the air in the room and to disinfect the same, a vessel containing the following should constantly be kept simmering, a modification, we believe, originally suggested by Dr. J. Lewis Smith, N. Y.:

R Ol. cinnamon	30 parts
Ol. eucalypt.	150 "
Acid carbolic.	220 "
Ol. terebinth.	420 "

M. Use one ounce to a quart of water.

An adjoining room should be appropriated to the use of the attendants, to the door of which needed supplies should be brought, and from which disinfected articles be removed for further disinfection

with boiling water. The visits to the kitchen by the attendants, where other members of the family are, perhaps children, should not be allowed. To, or in this room, provisions can be brought and prepared as ordered for the patient, which brings us to the subject of

FOOD.

In order to support the strength of the patient, the proper nourishment is a matter of the most vital importance. Though anorexia is generally persistent, systematic feeding should be instituted early, and of such character as is suitable to the age and condition of the patient. Fluid nourishment being most tolerant to the stomach; as milk, warm or peptonized, cold milk, beef juices expressed from broiled beef, beef peptonoids and other food more concentrated, as eggs, soft boiled, eggs and milk; and when stimulants, which are required early in severe cases, eggs and milk beaten up with brandy, also milk punch, should be judiciously given.

In those cases where there is an unwillingness, or as is frequently the case, an inability to swallow nourishment, enemata of the articles just mentioned should be resorted to early, freely and continuously, until convalescence. This cannot be emphasized too forcibly, for by the early and continued support and maintenance of the vital powers, we thereby assist nature to resist and withstand the septic influence of the disease, and thus we often accomplish more than by over-much medication.

LOCAL TREATMENT.

The necessity for seeing diphtheritic cases early cannot be over-estimated, and in our judgment should justify the request, on the part of the family physician, for a speedy summons in time of sore throat epidemics especially; for success in a great measure will depend upon the local treatment being employed early, vigorously and with a view to destroying the diphtheria bacillus and preventing the absorption of the poison, now known to be tox-albumen. To accomplish this desirable result in

PHARYNGEAL DIPHThERIA:

First, disinfect the throat; and second, remove the exudate as fast as it forms:

To accomplish this, begin by spraying the throat with a 1-1000 aqueous solution

of mercuric chlorid, using one of the many atomizers, or if the child is sufficiently intelligent have it gargle with the same solution, which will make the throat safe to work with, to be repeated every three or four hours. Then by means of brush or cotton swab, patiently and with care dissolve the exudate, by applying the following:

R Papayotin or trypsin* gr. lxx
Hydrarg. chlo. cor..... gr. ¼
Aqua distil..... f. ʒ iv

M.

Apply every half hour until the membrane is dissolved; and at the same time every half hour alternately, disinfect the throat by using one of our safest antiseptics; the peroxid of hydrogen, though not a germicide, accomplishes the same result by interfering with the development of the bacillus. Spray the throat, using from one-half to 15-volume solution or full strength, which will aid in dissolving the exudate in its formative stage, but fails to do so later, when imbedded in necrotic tissue, for which reasons these applications should be faithfully applied, not even allowing the patient's sleep to interfere; for very frequently the fate of the case depends upon the first twenty-four hours of local treatment, which if persistently and efficiently done, we have reason to believe that the septic influence of the bacteria may be prevented, and instead of a lingering case, we will have a rapid recovery of the patient. We, however, cannot afford to confine our remedies to one or two, but suit the remedies to the case; hence, another very valuable and safe disinfectant and good antiseptic successfully used, where the other might be inapplicable, is a ten grain solution of the nitrate of silver. The solid stick or even a too strong solution, makes it difficult to distinguish the resulting coagulated albumen from the diphtheritic exudate; besides, we have thought that its frequent application tended or predisposed the inflamed mucous membrane to a necrotic condition finally resulting in hemorrhage.

The forcible removal of the exudate and the application by means of cotton wrapped on a pincett, of the following:

R Camphor..... 20 parts
Castor oil..... 15 parts
Alcohol..... 20 parts
Carbolic acid..... 5 parts
Tartaric Acid..... 1 part

M.

* The best at our command.

† George M. Sternberg, M. D., on Disinfection, Hare System of Practical Therapeutics.

is recommended by Grancher† also Dr. Turner of Glasgow, suggests a similar treatment but uses the application of parafin. Being painful the treatment though successfully used in adults, is inappropriate with children, and further the danger of absorption from the wounded surface would be increased. The same objection would apply, it seems to us, to Dr. August Seibert's disc of hypodermic points, through which chlorin water is injected to destroy the bacillus, as it is now known that the bacilli are mostly on the surface of the membrane.

Since the use of corrosive sublimate, first by Billotte in 1876, it seems to be growing in favor. Rennert, of Germany, reports repeated successes, by wiping off the exudate with the following:

Hydrarg. chlo. corrosiv..... 1 part
Acid tartaric..... 5 parts
Aqua..... 1000 parts

The remedy is being largely used in England.

In very young children, the repeated insufflation of washed sulphur, an application which can be thoroughly made where we fail with many other applications, by simply using a glass tube. The good resulting may be attributed to the disinfecting properties of sulphurous acid, set free by the oxidation of the sulphur.

As a topical remedy, we have used the perchlorid of iron in combination with glycerin, equal parts. In hemorrhagic cases it does well. With many it is the principal local treatment.

Carbolic, boracic and salicylic acid, have their appropriate use as antiseptic gargles and sprays, but as every intelligent physician has his own way of using means to ends, these, with many others, if time permitted, could be named as suggestive of the fact that it is unwise to restrict our remedies, but treat each individual case, not the disease. Keeping in view and preventing if possible, the tendency of the disease to extend to the larynx as well as to the posterior nares. If to the latter we have

NASAL DIPHTHERIA.

The nasal passage may be the primary seat of the disease; frequently, however, it is the extension of the pharyngeal affection. This complication is recognized by the forced mouth respiration, the nasal passages being closed by the swollen mucous

† Le Progress Med., Sept. 27, 1890.

membrane which is covered with a grayish white lining, discharging a thin acrid muco-purulent discharge which, later on, becomes greenish-yellow tinged with blood.

The glands in the neck soon become involved, with earlier constitutional involvement than in the simple pharyngeal variety. These unpleasant cases are difficult to manage on account of the intricate nasal passage which should be disinfected early by douching and spraying the nasal fossæ.

The former can best be done by means of a perforated flexible rubber catheter, attaching the same to any ordinary syringe, and by bending the patient's head forward, the nasal cavities can be thoroughly and effectually douched, preferably with the peroxid of hydrogen, every three or four hours.

The nasal passage may be sprayed with the same remedy, also with a weak solution of carbolic acid, or the corrosive chlorid, but some instructions to the inexperienced attendant will be necessary to the careful introduction of the nozzle of the atomizer, keeping it on a level with the floor of the nasal fossæ and parallel with the septum, so as to prevent wounding and the resulting hemorrhage. The greatest cleanliness should be observed in these cases, using the 1 : 1000 chlorid wash, and the cremation of all nasal discharges. But as intimated the exudate may extend to the larynx and the result is the most dangerous phase.

LARYNGEAL DIPHTHERIA.

Though the duality of membranous croup and diphtheria is not absolutely settled, yet the fact of their unity being so regarded by physicians generally and acted upon approvingly by boards of health, is accomplishing good as a check to its spread. The bacillus may primarily attack the windpipe, but, like the nasal form, it is frequently the extension of the disease into the larynx. Its commencement may be recognized by a hoarse croupy cough with aphonia, and later a gradually increasing dyspnea. These symptoms sometimes subside in a few days under the internal treatment of bichlorid and spray of the same from a steam atomizer, also lime water and 2 per cent. solution of carbolic acid, or the steam from lime slacking in any ordinary vessel having a perforated lid, to which a tin tube or pipe can be

conveyed into a tent constructed over the child—not forgetting proper ventilation—or to the mouth of the patient. We cannot expect, however, as much from our spraying and local applications which are so beneficial in the laryngeal and nasal form of the disease. In this connection and in this form of the disease, we wish to call attention to a remedy the results of which have been recently so satisfactory as to justify further trial, namely, oxygen. It should be given early because of the better oxidation of the blood. The increased tone and strength, both to the nervous and muscular system resulting from the improved condition of the blood, allays nervous irritation and excitability and produces sleep, all of which tends to assist the vital powers of the system to battle with the disease. Three inhalations in succession of about twenty seconds each, allowing the gas to pass through a jar of antiseptic water, should be given three or four times daily, or oftener, when there is labored breathing or a cyanotic condition. But should the dyspnea increase, preparation will have to be made to intubate or perform tracheotomy, which leads us into the domain of surgery, upon which it is not our purpose to enter, further than to state that either operation gives the patient about equal chance. Dr. Stern makes the per cent. of recoveries of the former 26 2-5 per cent. and the latter 26½ per cent. The same author recommends intubation under three and a half years of age, and after that time the preference is for tracheotomy, excepting adults. Dr. Montgomery, however, who has had a large experience in intubating, writes us that he has had 44 per cent. of recoveries. But in our treatment we should not forget

CONSTITUTIONAL REMEDIES.

Just how soon the poison of diphtheria is taken up by the absorbents, and how much or how little is required to contaminate the system, we have no reliable means of determining. That it is absorbed very rapidly we have only to recall the cases in our experience of heart paralysis after a few days of illness, and the amount to produce septic influence may depend largely upon the susceptibility of the person. But Welch and Flexner have shown that 2 cc. of filtered culture fluid contained toxic properties sufficient to kill a guinea-pig. So it is well to begin internal remedies early,

and we can make no mistake by giving the chlorid of iron and quinin in large doses suitable to the patient three or more times daily, so as to obtain not only the tonic effect of both, but the antiseptic influence of the iron; or alternate or substitute for the iron the following:

R Hydrar. chlo. cor.....grs. jss. (1½)
Syr. aurant rub.....
Aqua aa.....f ʒj.
M.

Take from one-half to a teaspoonful every six hours. The object being as Dr. Jacobi suggests, "to have its specific counteracting effects on the diphtheritic poison in the system."

Chlorate of potash is looked upon with less favor than formerly, because of its unfavorable action upon the kidneys.

Complications or sequelæ of diphtheria in the form of paralysis of the uvula, arms, or legs, can best be relieved by general tonics, change of air; we have found a sojourn by the sea of great benefit. Obstinate cases yield to hypodermic injections of strychnia, from 1.20 to 1.60 gr. three times daily. Electricity will also be of service.

Instead of summing up conclusions, allow us to say a word in reference to our future hope—

PROPHYLAXIS.

1. Against personal infection, physicians and attendants should gargle the throat, wash the nasal passages, face and hands before and after visits, in 1-1000 solution of corrosive sublimate, and nothing short of a change of garments is excusable in going from a diphtheritic case to other patients.

2. This paper would be more incomplete than it is, did we not refer to what modern bacteriologists are accomplishing for us, particularly concerning the prevention and cure of the toxic products producing the morbid symptoms which we more or less see in every case of diphtheria.

Dr. E. A. De Schweinitz, Biochemic Laboratory, Washington, D. C., replying to our query, writes: "Experiments in this country and abroad have demonstrated that a substance (albumose) exists in and can be isolated from the cultures of the diphtheria bacillus which produces, when injected into guinea-pigs, immunity in those animals from this disease." Hardly had we begun to ask the question,

why can not this immunity be safely rendered to man? when we learn from Germany that "blood-serum" from immunized animals is an anti-toxine which gives immunity to the individual, and that Dr. Aronson, of Berlin, claims for his blood serum immunizing strength of 1-10,000 for guinea-pigs; for children weighing forty-four pounds; 4 ccm. given subcutaneously, which doses afford positive protection if injected before infection; being inefficient in the disease's later stages.

But "later investigations, particularly Behring, have proved that this property of blood serum to counteract the bacterial poison may be progressively intensified, so that by repeated inoculation, a complete immunizing strength can be obtained, potent even against super-virulent bacteria cultures. The injection of blood serum from such animals afforded not only protection against virulent infection, but aborted the already present infection and made it harmless, and therefore proved a *specific cure* for the indicated disease." If these facts can be established in this country and elsewhere, surely the "goal of therapeutic effort" is reached and the glory for the second Jenner is in reserve.

A LONG FAST.—Russian newspapers report the case of a girl, seventeen years old, who was overtaken by night, and being afraid to go home in the dark, decided to pass the night under a *hangar* covered with a little straw. During the night a snowstorm occurred, and in the morning the girl found herself unable to escape from the load of snow which covered her. The first day she ate five morsels of bread which she had with her. After that she had no other nourishment than the snow which imprisoned her. It was not until the end of *fifty-one days* that she was discovered and taken to a hospital. Although unable to move, she could answer questions. She made rapid progress, and at the end of the first week could take the ordinary diet of the hospital.

Conceptions just previous to the menstrual period result in boys; those just after, in girls. Such is the conclusion from many observed, notably among the last by Dr. George Abbott, who publishes his opinion in the *Medical Record*.

TRANSLATIONS.*

THERAPEUTICAL SUGGESTIONS FROM FOREIGN JOURNALS.

IN-GROWING TOE-NAIL.

Dr. C. Huebacher, (*Correspondenz-blatt f. Schweizer Aerzte*, No. 54, 1893), observing that neither removal of the nail nor excision of the lateral grooves will hinder recurrence of in-growing toe-nail, while local application of caustic potash is not radical and excision of the whole bed is apt to be succeeded by a granulating surface that requires time to heal and is liable to try the patient's patience, has tried to overcome this difficulty by removing the entire bed of the nail and covering the defect by a skin flap according to Thiersch, in order that healing follow by first intention. He proceeds as follows: an injection of a cocaine solution is made into the toe, the nail is split and both halves evulsed, the two lateral folds cut out and the posterior portion excised that an even and fresh wound surface result. The whole bed of the nail is then freshened up with the knife held on the flat. The hemostatic bandage is then loosened, the hemorrhage controlled by means of a tuft of gauze and a thin layer of skin cut from the surface of the thigh and transferred to the wound. As a dressing, strips of gauze, dipped into a solution of iodoform in olive oil, are employed, over this cotton and then gauze. The patient is kept in bed and after two to three days the dressing is then changed. Healing usually takes place, by first intention. A protective against friction may be given by covering the toe with an investment of iodoform gauze and collodion.

TREATMENT OF ABORTION.

Dr. Czempin, (*Wiener Medizinische Presse*, No. 44, 1893), warmly recommends prophylaxis for, in spite of hemorrhage, the fetus may still be able to continue its development. The greatest quiet, and above all, rest in bed are to be observed during the time corresponding to the menstrual epoch, for then the inclination to hemorrhage is greater. A cause less frequently thought of as inducing abortion, is the existence of cicatricial adhesions binding the uterus to its sur-

rounding tissues and organs, after preceding pregnancies; cervico-vaginal lacérations and their cicatricial adhesion to the surrounding tissues and the residua of parametric exudates. Abnormal fixation of the uterus to the lateral pelvic wall may also hinder the organ in rising up into the abdomen, in the third and fourth months. Violent colics are thus produced which can not be traced to any palpable cause, and are often difficult of explanation. The influence of the inter-abdominal pressure, with the movements of the body, lead to hemorrhage into the mucous membranes and consequent abortion. Even under such conditions, by rest in bed and care, one may surmount this critical period in the third to the fourth month. Treatment must consist in removing all the harmful influences. Three classes of abortion may be distinguished:

Incipient abortion.—The fetus and placenta are yet retained in the uterine cavity in spite of pains and hemorrhages.

Incomplete or protracted abortion.—The fetus is expelled and the placenta or portions of it are still retained. Here there are liable to be severe hemorrhages or ill-smelling discharge and fever.

Complete abortion with hemorrhages from the mucous membranes. The fetus and placenta are expelled, the uterus slightly enlarged, with continuous slight hemorrhages or bloodily tinged serous discharges, from incomplete throwing off of the decidua.

The first group, which is relatively rarely observed, demands careful expectant treatment, and with severe hemorrhages, acceleration of expulsion. Tamponading the cervix, with strips of iodoform gauze, will both dilate and excite contractions. Introduce them up above the internal os and if necessary renew the procedure. Manual evacuation, if called for.

The second class is the most frequent and dangerous. The severe hemorrhage, with the succulent, soft and enlarged uterus and the open cervical canal, call for immediate digital evacuation of the uterine cavity. If the cervix be closed, dilate. The dull curette should only be employed after previous dilatation and the sharp

*Translated for THE MEDICAL AND SURGICAL REPORTER by F. H. Pritchard, M. D.

curette never. Ergot is here contra-indicated as residua, even if of large size, are not influenced by strong contractions. He recommends tamponade for twelve hours before evacuation, as it causes softening of the cervical tissues and greatly facilitates forcible dilatation. If there is neither severe hemorrhage nor fever, employ the gauze tamponade, otherwise force dilatation. This is best done by introducing a Simon's speculum, fixing the cervix with a tenaculum and slowing introducing Hegar's dilators, under anesthesia, if necessary. When the cervix easily opens up, the finger is introduced, all portions of the uterine cavity are searched over and the placental residua removed.

The third group is often too energetically treated, for spontaneous expulsion often follows later. Even if none of the secundines are cast out, one may safely wait twenty-four hours in recent cases. The firmly contracted uterus shows that the placenta is expelled and that only the decidua remain. The dull curette may be employed without dilatation. In the greater number of cases a few doses of ergotine will generally suffice to induce their being expelled. It is injudicious to curette after each and every case of abortion without having examined the parts thrown off.

CONFUSION OF GASTRIC AND INTESTINAL DYSPEPSIA.

Prof. Germain See (*La France Médicale*, No. 52, 1893) claims that a third of those patients who were thought to be dyspeptics and of stomachic origin are actually sufferers from intestinal disease. This holds good especially, in women, for a careful examination both by physical and chemical diagnostic measures reveals good gastric function and no dilatation, while they have gone from one physician to another and have been treated for dyspepsia. These dyspeptics are not suffering from a gastric disease, for their whole trouble lies in the intestine and pre-eminently in the large intestine. It deserves the name of muco-membranous enteritis. The small intestine in such cases is healthy. This muco-membranous enteritis is characterized by disturbances in the functions of the colon, gaseous fermentation; dilatation of this intestine, but nothing reveals it with certainty other than

the passage of mucous glairy, ribbon-shaped or cylindroid masses, with the feces often unperceived. These mucous products are also frequently accompanied by the hardened residua of undigested food. Treatment consists in evacuation by mechanical means, as olive oil or senna, but not by purgation, calming the pains by the bromide of calcium or strontium or cannabis indica but not by opium and its preparations. Fermentation and the formation of gas may be limited by the phosphate, the biborate or the salicylate of soda, never by benzo-naphthol. The diet is that of one in health except that the presence of habitual constipation or incidental diarrhoea alter it. In general, hearty foods as ham, pork, game, boiled eggs are easily digested, while milk is tolerated with difficulty. Potatoes, either mashed or boiled, as well as rice, are easily digested though fruits are of no advantage. Water and tea are permissible as beverages. Gaseous waters are contra-indicated on account of their containing carbonic acid gas. Alcohol, being in large measure absorbed by the stomach, is best left alone unless temporarily, when digestion is bad. Then a hot sling is of service, while red and white wines are not to be allowed.

NITROGLYCERINE IN POISONING BY ILLUMINATING GAS.

Dr. Hoffmann (*Deutsche Medicinische Wochenschrift*, No. 50, 1893) has employed subcutaneous injections of nitroglycerine in cases of poisoning by illumination gas, with the best of results. He injects from one hundred and twentieth, to an eighth of a grain every twenty minutes. Others have confirmed this.

GONORRHOEAL CYSTITIS.

Dr. Okeblom (*Deutsche Medicinische Wochenschrift*, No. 35, 1893) in cases of cystitis, and more especially where it is of gonorrhoeic origin, injects every second to third day, one to six grams—fifteen drops to one and a half drachms—of a solution of iodoform in ether and olive oil—1:7:7—by means of a Guyon syringe. The pain and tenesmus cease at once.

UNTOWARD EFFECTS OF IODOFORM.

Prof. L. Lewin (*Hospitals-Tidende*, No. 31, 1893) devotes an extensive article to

the side and after-effects of iodoform. On the skin, in some cases acne and purpura, have been noticed after its internal use. Cutaneous symptoms are frequent and are chiefly, though not entirely, due to its local use. Local dermatitis is the form most often noticed, though it may extend more or less over the body in exceptional cases. This eruption may be either eczematous, vesicular, pustular, impetiginous, or erysipelatous and often accompanied by high fever. In other cases, extensive erythematous eruptions, with formation of bullæ or purpurial patches as well as urticaria or papules have been observed. Intense itching may complicate and the dermal phenomena last for several weeks.

Conjunctivitis, transient amblyopia, alterations in the pupils and strabismus are recorded. Among the symptoms are mental alterations which either exist alone or are the forerunners of graver psychoses. In most cases they assume the form of melancholy, with anxiety, uneasiness of mind, inclination to tearfulness, tiredness of life and restlessness which very frequently alternate with periods of excitement. This may be associated with vertigo, headache, elevation of temperature, sleeplessness and small and rapid rise of pulse. The pulse may, without disturbance of the general health, run up so as to become uncountable while the temperature remains normal. The temperature may also rise and continue for several days at this elevated condition, several degrees over the normal, without the patient experiencing a feeling of illness. This increase of pulse, without accompanying fever, is a threatening symptom in elderly people.

Melancholia, the chief expression of its mental action, when once it has appeared, is prone to persist. It is accompanied by hallucinations, visions, illusions and anxiety which are expressed in the delirium of persecution and in the attempts at suicide. These patients, as a rule at night, but even during the day, suddenly will jump from their beds, try to spring from their windows, to escape or to throw themselves into the water. They attempt to tear off their bandages, destroy the bedclothes, talk confusedly, stamp their feet, rage and do not recognize their surroundings. This condition may last from a few hours to days and pass off into a more morose and tearful state, which soon ends in recovery. They remember nothing of the

attack and present pure types of transitory mania. In some cases the depression increases in intensity, and a completely stuporous state of melancholy develops, with refusal to take food, rapid decline and death. Seizures of anxious excitement and choreiform attacks, loss of appetite, and violent vomiting* have also been noticed after the use of this antiseptic. In men and animals poisoned with it, no pathological alterations are found in the brain and its membranes, but only fatty or parenchymatous degeneration of the heart muscle, liver and kidneys.

ACNE.

Dr. Phillipson (*Hospitals-Tidende*, No. 50, 1893) recommends in acne the following lotion:

R Acetic acid,
Tinct. benzoin,
Spirits Camphor, ana..... 6 gms. (3jss).
Alcohol.....82 " (3jss).
Apply locally morning and evening.

VINEGAR IN VOMITING AFTER CHLOROFORM.

Dr. Warholm (*Hygiea*, No. 10, 1893) has employed vinegar with success in the treatment of vomiting after anesthesia by chloroform. He dampens a cloth with the liquid and places it near the patient's nose, allowing it to remain there until he awakens, or even longer if vomiting then threaten. He warmly recommends its use.

CHRONIC URTICARIA.

In the (*Hospitals-Tidende*, No. 44, 1893), the following salve is advised in the treatment of chronic urticaria:

R Chloral,
Powdered camphor,
Gum arabic, aa.....5 gms. (3j¼).
Simple cerate.....40 " (3j¼).
Rub in well every evening.

ANEMIA IN NEURASTHENIA.

Prof. Gram (*Hospitals-Tidende*, No. 47, 1893) employs the following formula:

R Citrate of iron and quinine...5 gms. (3j¼).
Distilled water.....200 " (3vjss).
Brandy.....
Syrup, ana.....50 " (3jss).
A tablespoonful three times a day.

GASTRIC SYMPTOMS OF NEURASTHENIA.

Drs. Rummo and Braccini (*La Semaine Médicale*, No. 54, 1893) employ the following formula:

R Phosphide of zinc.....1 gm. (grs. xv).
Bromide of zinc.....1 " (grs. xv).
Bromohydrate of quinine...1.5 " (grs. xxij).
Extract of nux vomica.....15 cgms. (grs. ijs).
For thirty pills. Three per diem.

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SATURDAY, FEBRUARY 10, 1894.

EDITORIAL.

INFLUENZA.

"Oh, I have pass'd a miserable night,
"So full of fearful dreams, of ugly sights,
"That, as I am a Christian, faithful man,
"I would not spend another such a night,
"Though 'twere to buy a world of happy days,
"So full of dismal terror was the time."

—Shake.

When the present epidemic was beginning to make itself evident in this country, the average physician was prone to regard *La Grippe* as a fashionable euphonism for cold in the head. After a personal experience with the disease, the average physician is apt to remember *La Grippe* as an avalanche of outer darkness, overwhelming the physical energies, paralyzing the mind and plunging the spirit into an abyss of misery that gives a new and vivid meaning to the despairing cry of fallen Lucifer:

"Which way I fly is hell; myself am hell,
"And in the lowest deep a lower deep,
"Still threatening to devour me opens wide;
"To which the hell I suffer seems a heav'n."

Influenza presents probably a greater variety of symptoms and manifestations than any other known disease. On the one hand it appears as a transient cold in

the head, while in its graver forms it may strike down its victim with the utmost rapidity, or so completely prostrate his mental and physical powers as to invite insanity and even suicide.

Dr. Guiteras thinks that a safe answer to the question "What is influenza?" would be, "An epidemic cold depending upon some yet unknown cause." This is more general than it is satisfactory, but it is doubtful if a more exact definition can be given.

Guiteras says (*Med. Rec.*) concerning its etiology:

"Predisposing influences, none. People are attacked without distinction of age, sex, occupation, or social standing. Previous or present illness affords no protection. One attack renders no immunity from another. Overcrowded, unhealthy, badly ventilated, and damp dwellings render attacks more severe, although the dwellers are no more prone to it. Influenza may occur in any season. It occurs usually in the autumn, often in the spring, and sometimes in the summer and winter. Latitude has no effect, as in the epidemic

of 1837 it appeared at the same time in England and Cape Colony, that is, in directly opposite zones and seasons. Climate has no influence, as it occurs equally in the dampest and driest regions. Certain meteorological signs and coincident phenomena have been remarked as preceding many of the previous epidemics, such as foul fogs, volcanic eruptions, earthquakes, etc.

"The rapidity with which it spreads and the great numbers who suffer from it at the same time and in the same way, certainly point to some specific poison which is carried by the air as a disseminating medium and excites the disease. This poison was supposed by many for a long time to be the sulphur and other matter thrown from the volcanoes, which was carried about in dust-fog currents, a foul fog having been generally noticed before an epidemic, or accompanying it. In this enlightened age, however, I think we are justified in believing that the exciting cause is a micro-organism.

"The investigations of the bacteriologists in searching for micro-organisms have resulted as follows:

"For several years the diplococcus pneumoniae of Fränkel and Weichselbaum, the streptococcus pyogenes, the staphylococcus pyogenes aureus, and several scattering forms were the only ones found, until Dr. Pfeiffer, of Berlin, in 1892, discovered a bacillus in the secretions of patients suffering from influenza, which was declared by Koch, Kitasato, and others to be the true germ of this disease. This bacillus was about the thickness of bacillus mouse septicæmia, but only half the length. As only the two ends stain, it is very hard to distinguish it from the diplococcus and streptococcus. Former observers seeing these mistook them for the latter. They were cultivated by Kitasato and others.

About the same time Bruschettini¹ found the same germ in the blood of those suffering from the disease.

The question why an epidemic may break out at one time and then for years remain dormant is not an easy one to answer. It is probable that there are cycles in which peculiar seasons recur, and that such cycles are associated with the reproduction of similar disordered conditions in the health of man."

It occurs to us that influenza, at least in the more marked nervous forms of the disease, is essentially a neurosis of the central system, or else in these forms the bacillus or its products exercise a peculiarly toxic effect on the upper spinal system. This is on the assumption that the disease is essentially a germ disease, although the life history of the specific germ has not yet been declared.

By far the most common form of the disease is that in which the catarrhal symptoms predominate, and though protean in its manifestations, its sequelæ are not as disastrous as are those of the distinctly nervous type.

The prognosis, as regards life, is good in most cases. The disease is self limited, and with suitable treatment and proper care on the part of the patient, there is little doubt of speedy recovery. In the old and infirm, in those suffering from chronic diseases, in patients with Bright's disease or valvular disease of the heart, influenza is dangerous; very frequently fatal.

Treatment must be directed to the symptoms presented by each individual patient. On general principles, the bowels must be kept soluble; headache, fever and pain controlled by suitable drugs, but with the careful avoidance of such as tend to depress; stimulants must be used where necessary, but never in excess; while the system must be supported and built up by tonics and foods. Other indications must be met with as they rise. But there is one thing that should be im-

¹ *Ricerche bac. sull. infl.* 1a. comunicazione preventiva. *Riforma Medica*, Gennaio, 1892.

pressed on the patient's mind. Influenza is a disease not at all amenable to the will power of the individual. Attempts to combat it by the exercise of will are only wasted energy, and the best means to in-

sure a speedy recovery is absolute rest in bed from the time the disease makes itself evident, until the system has become habituated to its presence and has recovered itself enough to resist its inroads.

ABSTRACTS.

SOME THINGS THAT SHOULD NOT BE FORGOTTEN BY THE GENERAL PRACTITIONER.

B. C. KEISTER, M. D., SOUTH BOSTON, VA.

First, he should recognize his duty to himself, and second, his relationship to other physicians. I believe it was the late Dr. Flint who made the remark that "every physicians who is true to himself should be a thorough gentleman, a thorough business man and a thorough physician."

First of all, he should be in sympathy with the Christian religion; even if he is not a member of any special branch of the orthodox church, he should certainly not be a skeptic or an infidel. It would be exceedingly difficult for a skeptical physician to hold the confidence of one of his church-going patients through any serious illness, to say nothing of the many other disadvantages, under which he would have to labor. I may be pardoned for saying that we have in our ranks, men who are not only skeptical on religion but *peculiarly* so on the science of medicine. They delight to speak disparagingly of the science and are fain to show an air of ostentation that well characterizes the peacock or the *non compos mentis*. This latter class of physicians, to say the least, are unworthy of the title they bear; for to them is due the skepticism that exists among the laity on the science of medicine, and thus a great barrier is formed between physician and patient, to say nothing of the harm done to the credit of the profession. It is true there are wonderful changes constantly being made in the art of medicine, but generally speaking, these changes are only the steps toward a better and more perfect practice of the science. As man's constitution changes so must our practice change, in order to adapt its merits to man's necessities. Medicine is a progres-

sive science. The advance that has been made in the past ten years in the science of medicine and surgery far surpasses that of all other branches of knowledge. Dr. Nicholas Senn, who is one of the progressive surgeons of the world, remarked to a large body of physicians a few months ago, that there had been more genuine progress made in the science of surgery within the past ten years than had been made during the previous one hundred years. Thus we see how grandly our great science is keeping abreast with all others, and I may add, since antiseptic surgery and electricity have come to our aid, we are fast outstripping all other professions on the broad road of progress.

All honor to such men as Koch, Pasteur and Sternberg, who have accomplished wonderful results in their researches with the microscope, in ascertaining the cause of disease. All honor to such men as Senn and Gerster, Loomis and Osler for putting into practice the teachings of the former, and thus bringing about a grand revolution in the practice of medicine. It is the duty of every true physician to hold up the standard of his profession. And to do this successfully, he should be both a thorough gentleman and a thorough physician. He should keep abreast of the times, by spending at least three months out of every three years at the medical centers, where hospital advantages are offered to the general practitioner as well as to the specialist. This is a duty that every true physician owes to himself. If every general practitioner would do this, he would be better prepared to do his work, instead of allowing his patients to go to the city

specialists to be treated for the very disease that he could have treated equally as well at home. It is passing strange that there are so many general practitioners, who from mere want of confidence in their own abilities, will send their patients to the cities to be treated by men who have had less experience and fewer collegiate advantages than they have had. I am acquainted with a physician who sends at least one-third of his cases to the city to be treated; these, doubtless, could be treated at home just as well. I claim that there is but one advantage the prominent city physician has over the town or country physician, namely, the hospital advantages, where good and skillful nursing is required after capital surgical operations. We need a few more McDowell's and Sims in the country villages to encourage us to compete with the city surgeons and city specialists.

I long to see the day when every village and country doctor will be as handsomely equipped in office facilities, etc., as any city specialists, and thus be prepared to treat his cases at home, instead of sending them with their pockets full of money to the city specialist. I am proud of the fact, that out of a yearly three thousand dollar office practice, I have thus far been able to treat my cases at home, and I mean to continue to do so as long as I remain in the practice of medicine. There is no just reason why every physician should not keep abreast of the times as above indicated, and be equipped with a full supply of the necessary surgical instruments, galvanic, faradic and cantery batteries, etc. There are many lives sacrificed, wholly on account of the attending physician not having proper surgical instruments to relieve the patient. To cite an instance of this kind:

About four weeks ago I was summoned fifteen miles in the country to relieve a man who was suffering from suppression of the urine, due to organic stricture of the urethra. The attending physician, who is a very clever man and a good doctor, did not have a urethrotome or any suitable bougies by which to relieve the patient of his intense suffering, and he had not passed scarcely any urine for the previous thirty-six hours; doubtless he would have died very soon from rupture of the bladder or uremic poisoning had he not been relieved. The pay received in

this one case would have been sufficient to purchase two or three urethrotomes and a sufficient number of filiform bougies to last five years.

I claim that in nine cases out of ten it is *sheer stinginess* on the part of the physician, that he is not properly equipped with suitable instruments. Every physician should have in his office one good twenty-four cell galvanic battery, two good faradic batteries and one good galvanocantery battery, (I like McIntosh's batteries better than any other make). If he has studied electro-therapeutics and can master it well, he will find it a wonderful help to him in the treatment of diseases peculiar to women.

I am very much inclined to believe, that in the course of time electricity will take the place of the surgeon's knife in gynecology. I can testify to its proficiency in the treatment of fibroid tumors of the uterus, subinvolution and many other diseases of this class. Conservative surgery is yielding better results every day, and I believe the time is not far distant when women's ovaries will be let as severely alone by the abdominal surgeon as the Holy Bible. Away with the idea of a physician's reputation being gauged or made by the number of laparotomies he performs or the number of women he unsexes. It was my privilege a few months ago to be an eye witness to some ten or twelve laparotomies, and I must say, with all due deference to the skilled operators, that in my humble judgement, at least two-thirds of those poor women would have been far better off without the operation. I may cite one case in particular, that had been diagnosed cystic disease of both ovaries, but on opening the abdomen and close examination the cystic disease failed to show up. The operator, however, thought it best to remove the ovaries lest the disease should show up later on. Now, this simply shows how a thing may be run into the ground by the sheer craze for reputation. There were some fifteen or more other general practitioners who witnessed this operation with me, and it was interesting to see the exchange of frowns from one to the other during the later part of the operation. The skilled professor tried very hard to justify his theory for castrating this poor woman, but it failed to have the desired effect upon those who were present. The

main symptom complained of by this woman was pain in the region of both ovaries at each menstrual period, with some irregularity of her menses. I claim that such cases can be relieved, if not cured, by medicines and electricity. Dysmenorrhea with narrowing of the internal os of the uterus can be successfully treated by three applications of Goodell's uterine dilator, followed each time with six minutes intra-uterine electricity by the faradic battery. I have never failed to cure a single case where this treatment was adopted.

I was very favorably impressed with the remark made by Prof. Bangs of the Chicago Policlinic, in one of his lectures on gynecology, when he said, "that after some fifteen years of active practice in his *special* branch, he had come to the conclusion that three-fourths of the diseases that women suffer from were due to constipation of the bowels." He also remarked in one of his lectures on cervical lacerations, "that three-fourths of these lacerations were almost harmless, and hence did not require operative procedures and that conservative treatment yielded far better results in such cases."

Thus we see, there is much for the general practitioner to consider before allowing his female patients to go off to be treated by the city specialist. There is no plausible reason why the general practitioner should not do as good work and get as good result in the majority of such cases, provided he has as well equipped an office as the city surgeon or specialist. In doing this he not only saves his reputation from being at the disposal of the criticising city specialist, but of equal import he saves hundreds of dollars that would otherwise leave his own needy pockets for those of the specialist. There is no reason why the general practitioner should not operate for cataract, or perform iridectomy, or remove a nasal polypus, or do any other work that he is called upon to do in the science of surgery and medicine, provided he keeps abreast of the times and is properly equipped for his work. He should consider that the city specialist's opportunities for acquiring knowledge are just the same as those of the general practitioner, for both sit side by side in the lecture hall, and hear the same lectures and witness the same operations in the same amphitheaters. It is no

less the privilege of the general practitioner to take special courses at the post-graduate schools at the great medical centers, than it is the privilege of the specialists. And just here let me add, there are many who call themselves "specialists" who have taken up their *specialty* without taking a regular course in the science of medicine, thus leaving out the real ground-work of their specialty. Such men should not bear the title of doctor. They are not prepared to do their work near as well as the general practitioner. Some of your readers may infer from what I have written that I mean to cry down the specialists. I simply desire to elevate the general practitioner and place him just where he rightly belongs, regardless of the claims of the specialist. It is true, we have some very worthy and distinguished specialists, and far be it from me to detract one iota from their escutcheons. All honor and praise to such men as Chisolm, Munde and McGuire, all of whom were once general practitioners, and well grounded in the science of medicine before they became specialists. We need more such liberal minded men in our profession to absorb the many mushroom specialist who are constantly springing up over the country.—*Jour. A. M. A.*

Me and the Cat.

RICHARD X— is an incorrigible youngster of ten who has shown a tendency to lay the blame of his misdeeds on other shoulders. His favorite scapegoat was the family feline. A jar of sweets could not be opened, or a bit of gingerbread purloined, or a vase broken to atoms, without a lame excuse of Dick's, "I guess it was the cat," calling forth his mother's reproaches:

"Richard, you must not lay the blame on the cat of all the wickedness you are guilty of in this house."

Not long after one of these upbraidings, in Sunday-school, his teacher asked Richard the question, apropos of the devil's power on earth.

"Who is responsible for the wickedness of this world?"

It was with a mixture of a contrite spirit and the old habit that little Dick answered: "Well, I suppose that I'm partly to blame. But—but I think our cat has her paw in it."—From the "Editor's Drawer," in *Harper's Magazine* for February.

SOCIETY REPORTS.

THE LOUISVILLE CLINICAL SOCIETY.

October 10, 1893.

OPERATION FOR APPENDICITIS.

DR. A. M. VANCE: This specimen is an appendix vermiformis removed this morning from a patient whom I saw for the first time just before the meeting of the Surgical Society last night, having been referred to me by Dr. Trunnell, who was called and made the diagnosis just before I saw the case. The man æt. twenty years, had been treated as I understand six days for typhoid fever. It was a very rapid case; there was a large mass in the right iliac fossa; patient having been taken suddenly sick a week ago, having suffered pain all the time; with loss of appetite, and nausea whenever he attempted to take food. McBurney's point was very well marked. There was no evidence of general peritonitis; there had been very little fever according to the history I was able to elicit from the family. His pulse was 90 and temperature 100 F. when he arrived at the Infirmary. I operated this morning evacuating probably $1\frac{1}{2}$ pints of pus and along with it a number of fecal casts. I show you in this vial three which have been dried out. I found the appendix covered by very much inflamed and adherent omentum, the appendix being gangrenous as was also its mesentery, which was extensive. I removed the appendix with a large piece of omentum packed the cavity with gauze around a glass tube. The patient is doing well.

DISCUSSION

DR. W. H. WATHEN: When you opened the cavity and removed these structures did you expose the intestines freely?

DR. A. M. VANCE: No, I simply opened the abscess cavity. The peritoneal cavity was shut off completely by adhesions of the great omentum to the parietal peritoneum. I stripped up the appendix to its attachment to the cæcum and tied it off in the cavity of the abscess, did not enter the peritoneal cavity proper at all.

DEATH RESULTING FROM A VERY SMALL CALCULUS IN THE BLADDER.

No. 2.—A month or so ago I was called by Mr. Morris to see a child eighteen months old, with a history that three days before he had been called on account of obstruction in passage of the urine; he had endeavored to catheterize the patient, but the catheter would not go in; finally, however, he passed a solid sound and the bladder was emptied by the side of the sound. The next day when he visited the patient the bladder was again full. It was there he noticed that the

scrotum had become tremendously distended and he thought the trouble might possibly be hydrocele. In consultation with some of his colleagues he tapped one side, but drew off nothing except a few drops of water. At the end of the third day I was called and told him that I could not understand what caused obstruction unless it was the impaction of a stone. I had a very small lithotomy staff with me which I introduced and at once touched a stone. The child was in a very extreme condition and was uremic. I took away the tremendously distended prepuce so as to get at the urethra better and made an incision in either side of the scrotum, the bladder having been emptied by the passage of the staff. (The child died of uremic poisoning twelve hours afterward). After the incisions were made in the scrotum it was emptied of the fluid by pressure. Dr. Baker made a post-mortem and found this little stone outside of the urethra in the scrotal tissue about the deeper portion of the urethra.

It is an interesting specimen and caused the death of the child.

AN EPICYSTOMY.

DR. I. N. BLOOM: A young man then seventeen years of age, on the fourth of July, two years ago, while celebrating the day in a perfectly natural way without excesses of any kind, fell astraddle a fence. After about two or three hours he passed blood from the urethra; this micturition of blood continued for two weeks, then ceased. At the end of that time he was attacked with all the signs and characteristic pains of ordinary cystitis. He consulted a physician, who made the diagnosis of cystitis and treated the patient for quite two years. During that time the bladder was washed out at least once a day. The patient grew worse and the washings were discontinued; he was better during the intervals and worse when treated.

When he came to me, in July, he was suffering from high fever—temperature 102° to 103° F., with an extremely rapid pulse. He was then nineteen years old. He had never had intercourse; never had venereal trouble of any kind and gave a clear history. I felt satisfied that the case was one of secondary cystitis, and that in any event an operation would be justifiable. I consulted with Dr. Griffiths, who fully concurred in my views. The fever went down in ten or twelve days, but the pulse continued very rapid—110 to 120 to the minute. I sent him to the St. Joseph infirmary, where he was treated four

or five days to get him into good shape for the operation. There was no more fever than could be accounted for by severe cystitis. I had examined his urine, found specific gravity 1018; pus, not a very large amount; sufficient albumen to be accounted for by the pus only, and, after a hasty microscopical examination, nothing indicating further trouble.

On the fourteenth of August, assisted by Dr. W. O. Roberts, I performed the operation of epicystotomy in the usual way, i. e., with an air bag (I would have preferred a water bag, but there was none at hand) in the rectum and the bladder distended with ten ounces of water. The operation was concluded without any trouble, the peritoneum not being the least in the way, and I removed from the bladder a large phosphatic stone $1\frac{1}{2}$ ounces.

The boy did very well for a week, except that at no time, during the week, did he have any appetite, and with difficulty could he be persuaded to drink two or three glasses of milk; all other food was absolutely abhorrent to him, and he was supported mainly on wine. The peculiar part of it was that although the temperature never went above 100°F. , the pulse never varied from 110 to 115, and 118 to the minute. I packed the wound with iodoform gauze; used no sutures. On the second day I took out the gauze. For the first week the urine was voided in part through the urethra, and in part through the wound; at the end of the week very little came through the wound. On the eighth day there was a slight slough in the wound. Although I did not consider it sufficient to be of any importance, I called Dr. Robert's in consultation, and he agreed with me. Ten days passed in this condition, pulse, and temperature remaining as stated. His abdomen at at no time was tympanitic, he had no chill, and altogether the case was a very puzzling one. Then the temperature became subnormal, 97.5°F. in the morning, not going higher than 98° and sometimes not higher than 99°F. in the evening. This was the condition of affairs until the boy died on the fifteenth day after the operation. Toward the end of the last four or five days, he almost ceased passing any urine by the urethra, all of it coming out at the abdominal wound.

It is my opinion that this patient died of pyelitis.

DISCUSSION.

DR. A. M. VANCE: Did the patient become comatose before death.

DR. I. N. BLOOM: No, I saw him in the morning before he died. Death occurring in the afternoon. He was perfectly conscious up to the time of his death. I will state that the stone removed from the bladder of this patient, and which I have exhibited here to-night, weighs $1\frac{1}{2}$ ounces. I had no opportunity for a post mortem.

DR. J. M. MATHEWS: About what quantity of urine was secreted each day after the operation?

DR. I. N. BLOOM: The urine would soak through the bandages, and there really was no way of estimating the quantity.

DR. A. M. VANCE: It seems to me that if this patient had suffered from any active inflammatory trouble, there would have been some rise in temperature.

DR. I. N. BLOOM: The temperature was at one time 101°F. , never going any higher. The pulse was always high, between 110 and 120, the first ten days, and for the last five days between 120 and 140. Lack of appetite was characteristic from the first.

DR. T. P. SATTERWHITE: Is not continuous high pulse always indicative of peritoneal trouble?

DR. I. N. BLOOM: You can have peritoneal trouble with low temperature and high pulse, but you would expect some tympanitic condition of the abdomen, which was entirely absent in this case.

DR. W. L. RODMAN (Visiting): I think Dr. Bloom's explanation of the case is the correct one, I do not believe the patient died of peritonitis. I do not think you would expect to have peritonitis as late as the fifteenth day after the operation. I have never heard of such a case, and believe that peritonitis is often clearly shut out. I think the patient died of pyelitis and suppression of urine.

DR. W. H. WATHEN: If this be true, why were not there some mental disturbance manifest in the case?

DR. W. L. RODMAN: I have seen suppression of urine with no disturbances of the mental faculties at all until very shortly before the end. I have seen cases where there was no urine at all scarcely with the patient's mental faculties perfectly clear until a very few hours of the end—in strangulated hernia for instance.

DR. W. H. WATHEN: Was there any change immediately after the operation?

DR. I. N. BLOOM: The change in two days was quite marked; there was an improvement in the patient's condition, the fever was reduced, but the pulse remained very high.

DR. W. H. WATHEN: It is impossible that the immediate cause of death was pyelitis, but I cannot think that there was suppression of urine otherwise there would probably have been more mental disturbance. I am sure that peritonitis was not a factor, because there could not have been sufficient peritonitis to cause trouble without evidences of it—distension of the abdomen and other characteristic symptoms. Still there may have been septic infection after labor where there was no distension of the abdomen simply a general infection destroying the vital functions, such as there may possibly have been in the case under discussion.

DISCUSSION.

Of a paper read by Dr. I. N. Bloom,

"SOME POINTS ON CHANCROIDS"

DR. J. M. MATHEWS: I cannot conceive of a subject of more importance to any Medical Society than that of syphilis. It is of value to have such a learned syphilographer speak to us as has been the case to-night. There is no general practitioner of medicine, no surgeon and no specialist who does not meet with this disease in some form. It is a terror to the profession. Just as I was starting from my office to attend the meeting of this Society, one of our business men came to me and said he wanted to ask concerning his brother-in-law, who happens to be a young man twenty four years of age now in a very responsible position in business. I had to say to him that I believed the gentleman in question was not only seriously affected, but that he could never recover. My reason for saying this was that he has syphilis of the rectum. I am sorry the essayist did not reach that point, and tell us how to best treat syphilis. But whatever the mode of treatment, or its application, I am at least forced to believe that when this terrible disease does effect the rectum, it is incurable. I scarcely wish to qualify that assertion. I know some men believe that when syphilitic ulceration exists in the rectum, by proper antisyphilitic medication it will disappear. I have taken the position that if the trouble is syphilitic and is attended by stricture, it is just as incurable as cancer. I have never seen an ulcerated syphilitic rectum cured. Therefore in my special line I regard it in the same light that we do cancer of the rectum an incurable affection; the only difference between the two being that syphilis takes a long time to kills cancer kill, more quickly. It is to the advantage of the patient to have the latter. This is a subject in which we are all interested; the specialist of whatever kind meets syphilis in his special line, and I hope the essayist will in closing the discussion tell us how to cure it, if syphilis is curable. I mean, of course, his general plan of treatment.

DR. W. L. RODMAN: I was not prepared to believe until this evening that syphilis was so much on the increase and chancroid on the decline; though in thinking over the subject it does occur to me that I have seen in recent years more cases of syphilis and fewer of chancroid.

As to the etiology of chancroid—I must confess that I have never seen my way clear to accept the new theory that chancroid is due to simple pyogenic micro-organisms; I am constrained to believe that there is something specific about the chancroidal virus. I know that this theory is gaining more or less acceptance by the profession, but it seems to me that there are strong reasons for adhering to

the old doctrine that there is something specific about the virus of chancroids. There are certain features which are difficult of explanation in any other way. I admit that no special germ has ever been found, but that is hardly a potent argument against the fact that one may be present. I have never seen for instance enlarged glands coming on as a result of suppuration say in the axilla from an abscess of the arm or the pectoral wall. I do not think we can get inoculation from ordinary healthy pus. I believe that there must be something specific in the pus that comes from chancroids.

DR. A. M. VANCE: Of course a great many cases of the character under discussion come under my observation, but I have not kept a record sufficiently accurate to be able to give any data on the subject.

DR. GEO. W. GRIFFITHS: I have seen more cases of chancroid than I have of chancre in the last year.

DR. W. O. ROBERTS: I am convinced that chancre is more common than chancroid I think that a great many of the cases of so-called chancroid we see in the hospital and in the clinics are really chancre. We do not follow the cases up long enough to be able to say positively. I know that several times I have missed the diagnosis, and have been corrected by the appearance of secondary manifestations later. As you know secondary manifestations do not always come on in a certain stated time; it may be three weeks, three months or six months. Then again it may be so slight as to hardly attract attention.

In reference to the specific virus of chancroids: Like Dr. Rodman I believe that there is something else besides pyogenic micro-organisms.

DR. I. N. BLOOM: All those who claim to have found the pathogenic bacilli of chancroidal virus, have failed to find anything but pyogenic germs in pus from the body of the gland or in the bubo resulting from it. This is quite contrary to the rule, but it is a fact that each investigator—and there have been eight or ten—who claims to have found the specific bacillus of chancroid, makes the further statement that he has been unable to discover it in the bubo. Is it your belief that specific chancroid is the cause of a simple bubo, *i. e.*, not specific in nature? Or do you believe that if there is a bacillus that is not a pyogenic micro-organism which is the cause of chancroid, it also exists and has not been found in the bubo?

DR. W. L. RODMAN: Pus from a bubo is just as inoculable as pus from a primary lesion, and if there be a specific germ in a primary sore, then that germ should be found in pus from a bubo.

DR. I. N. BLOOM: Pus from acne will produce the same sort of a sore by inoculation.

It is claimed by some, for instance, that after a time the pyogenic micro-organisms disappear from repeated inoculations of the virus of chancroid, but that the sores can be perpetuated endlessly. This claim is disputed by those who have made experiments; what one side claims the other side attempts to disprove. The premises are not granted by both sides. I think the question is still subjudice.

DR. W. O. ROBERTS: Do you believe that the gonococcus is ever found except in gonorrhœal pus?

DR. I. N. BLOOM: It is declared that it is not found in gonorrhœal rheumatism, but to the best of my knowledge and belief it is found in suppurative bubo. Whether the gonococcus is the pathogenic germ of gonorrhœa, I am not prepared to state. I would like to have Dr. Frank express his opinion upon this subject.

DR. LOUIS FRANK (Visiting): It is conceded by all authorities, far as I have read, that the gonococcus is positively the cause of gonorrhœa. The gonococcus is not only found in gonorrhœal urethritis, but it is found in gonorrhœal buboes; also it has been discovered in the rectum of patients who had ulcerations and were supposed to have been infected by the gonorrhœal virus; my remembrance is that it has also been found in sores where infection has been supposed to have occurred, and in gonorrhœal joints. I have not seen anything to the contrary.

DR. A. M. VANCE: I believe that later investigators do not agree that the gonococcus causes the so-called gonorrhœal rheumatism. The idea prevailing is that gonorrhœal rheumatism is a joint disease the result of sepsis, just as in the fever following child birth we have a pyemic condition.

Dr. Wathen reported

THREE SUCCESSFUL CASES OF VAGINAL HYSTERECTOMY.

(See page 201).

DISCUSSION.

DR. J. M. MATHEWS: I would like to ask Dr. Wathen the ages of the three patients referred to.

DR. W. H. WATHEN: The age of the first woman was forty-four years; the age of the second about forty-eight years; the age of the last thirty-three years. Dr. Louis Frank assisted me in these operations. Dr. Rodman was present at each of them, and Dr. Satterwhite was present at the last one.

DR. W. O. ROBERTS: Did you remove the appendages?

DR. W. H. WATHEN: I removed one of the appendages in the first case. In the second case I did not remove the appendages, because the broad ligaments were tense and the ovaries were held out so far they could

not be included in the clamps and so it was not necessary to continue the operation further in order to remove them. In the last case I removed the ovary and tube from one side. The other was high up so I left it.

DR. W. O. ROBERTS: I would like to ask Dr. Wathen why he prefers vaginal to abdominal hysterectomy.

DR. W. H. WATHEN: Vaginal hysterectomy is much easier than abdominal hysterectomy and results have been far more favorable. In the practice of an expert operator who observes everything in the interest of the patient, the mortality should not exceed five to ten per cent. The operations for cancerous disease performed several years ago, show an immediate mortality of nearly twenty-five per cent, and the permanent results were not nearly so favorable as in the operations by the vaginal method. But this would be very much changed now; the mortality in abdominal hysterectomy would not be so great as formerly because we now cleanse the vagina and uterus and by curettage, remove all danger of sepsis from that source; we place the patient in the Trendelenberg position and can ligate the broad ligaments ovaries, etc, much better than we could previously. It is probable that the immediate mortality from abdominal hysterectomy would now be very low. I have a patient under observation upon whom I shall probably do an abdominal hysterectomy. Some six months ago I curetted her thoroughly and removed a great deal of cancerous tissue from the body of the uterus, the neck being apparently healthy. The tissue removed was examined microscopically by Dr. Frank, and I believe also by Dr. Vissman, and the trouble pronounced unquestionably carcinoma. The uterus was found to be twice its normal size, and the vagina very small, the patient being a maiden lady of fifty-two years, I requested that she report to me when there was a recurrence of the trouble. About three months after she returned home she married a "rich old widower," and has had no symptoms of cancer since, but she will have a recurrence of the growth, and if she returns to me I shall do an abdominal hysterectomy because the uterus cannot be removed through the vagina.

DR. A. M. VANCE: What do you think of the operation of sacral section?

DR. W. H. WATHEN: That operation has been made prominent by Dr. Montgomery, of Philadelphia. I have read everything he has written upon the subject and have talked with him about it. While he deserves praise for his courage in this work, I see no real necessity for the operation. I would much prefer, if the vagina is too small to remove the uterus through that channel, to preform an abdominal hysterectomy.

THE LIBRARY TABLE.

BOOK REVIEWS.

On Gout, as Peripheral Neurosis. By Willoughby Frances Wade, Fellow of the Royal College of Physicians, etc.; Consulting Physician to the General Hospital, Birmingham. London, Simpkin, Marshall, Hamilton, Kent & Co. Limited. Birmingham, Cornish Brothers, New Street, 1893.

In this little book of fifty-nine pages, the author refers to the three theories current in regard to gout; namely, the humoral theory, the neural or nerve theory, and the neuro-humoral theory, and expresses the conviction that the latter accounts for more of the phenomena of this disease than any other. The frequency with which the joint of the great toe is attacked, as well as some other isolated facts, is cleverly explained, and the whole essay is an interesting addition to the literature of this important disease.

Traite des Retrecissements de l'Urethre, par le Dr. P. Harmonie, etc., etc., with a preface by Prof. Tillaux and 107 cuts in the text. 625 pp., Octave Doin, publisher, Paris, 1893.

Among the functions which are absolutely necessary to the physical health of man that of the kidneys and their appendages easily take a place in the front rank. Strictures of the urethra, in forming an obstacle to emission of the urine, are capable of producing a great amount of suffering and even death itself. Hence it is by no means astonishing that the attention of surgeons, of all times, has been directed towards the treatment of this serious condition. An enormous number of works have been written on this subject, and, it is far from being exhausted. This publication, is, without doubt, the most important, and, at the same time the most complete, which has been offered to the medical profession on this subject. It is warmly recommended by the well-known Prof. Tillaux, of Paris, who has honored it with an extensive preface. The work is divided into three parts, the description of urethral strictures, their complications and treatment.

The first section, occupying one hundred and eighty-seven pages after a preliminary definition, goes deeply into the consideration of the etiology. Gonorrhoea is the most frequent cause on account of its chronicity favoring the formation of cicatricial tissue. Besides urethral gummata and congenital strictures, they are of either inflammatory, cicatricial or a mixed origin. The clinical course and symptoms, examination of the patient, measurements of the urethra and the requisite instruments and principles, the various varieties in man as well as in women, together with the pathology, a diagnosis and prognosis are fully considered. The portion relating to the complications covers four hundred and three pages and deals very completely with all the details of our knowledge referring to them. The third section considers their treatment, it being quite exclusively and properly surgical. It fills one

hundred and eighteen pages. It is a practical work and shows the results of careful study and experience. It may be recommended to those desiring a special work on this subject, for it neglects no detail but treats all fully.

Etude Sur le Dermographisme ou Dermoneurose Toxikosomatrice, par Toussaint Barthelemy, Medecin nomme au concours de Saint-Lazare, etc. With seventeen cuts in the text. 287pp. Societe des Editions Scientifiques, 1893.

Under this title, dermatographism, the writer has studied a condition in which the skin presents the peculiar power of retaining inscriptions written on the surface with any blunt instrument. This sensitiveness of the integument may be so great that various dermatoses, as for example infectious diseases, may be simulated and give rise to errors in diagnosis. It is a special state of the vasomotor nerves, in a specially susceptible nervous system, which is impressionable or impressed either by heredity or by acquirement, due to the influence of the toxic agent, acting on the vaso-motor nerves, either peripherally or centrally. He first studies and examines the influence of heredity, social conditions, etc., in its causation, its pathogeny, its relation to allied states as blushing, spontaneous ecchymoses, hemorrhages, etc. By means of electricity he had succeeded, with electric currents of high tension, in producing experimentally a state very closely resembling dermatographism. Its diagnosis is quite easy, though it is frequently passed over unperceived. It is only necessary to mark with any blunt instrument, the finger-nail, the end of a pen-holder, etc., on the skin of a susceptible subject, in order to observe the skin rise up in relief over the track of pressure and retain the impression more or less distinctly, for a longer or shorter time. It is a vaso-motor disturbance, without pruritus, sensation of heat, anesthesia or hyperesthesia, as in urticaria. Its practical importance may be at once seen, in that in certain forms, various cutaneous affections may be simulated. As remarked before, it is an associated symptom of the nervous diathesis and arthritism. The work is divided into two parts. In the first he considers fully the various details of our knowledge of this subject. The second contains the records of the cases which he has observed and collected, among which there is a large amount of interesting historical matter on the relation of this affection to witchcraft and trials for sorcery where the so-called impression of Satan's hand, etc., was remarked. It is a very interesting work on a subject quite unknown.

Manley on Hernia.

This work contains the fullest accounts of all the ancient and modern operations in hernia; besides, clearly sets forth those hygienic and palliative modes of treatment, by which many varieties of hernia may be cured in early life.

Price reduced from \$3 to \$2.00 (post free).
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The Review of Reviews

for February is strong in all of its departments. In the "Progress of the World" the important political, social and industrial events of the month are reviewed and their significance clearly and frankly set forth. This department alone contains fifty timely illustrations, chiefly portraits of well-known men and women. Among the portraits are those of President Dole and his cabinet and sketches, drawn from life, of Representatives William L. Wilson, of West Virginia; Chas. F. Crisp, of Georgia; Thomas B. Reed, of Maine; Benton McMillan, of Tennessee; Thomas L. Johnson, of Ohio, and Julius C. Burrows, of Michigan. Apropos of the opening of the Manchester Ship Canal, the editor discusses that and various other waterway projects which are being considered by European governments.

February "Cosmopolitan."

The secret of the great success of *The Cosmopolitan* is not so hard to find, if one looks carefully over the number for February. A story by Valdes, the famous Spanish novelist, the first from his pen to appear in any American magazine, is begun in this number. Arthur Sherburne Hardy's story, "A Rejected Manuscript," is charmingly illustrated by L. Marold, who we believe makes his first appearance in the magazines on this side of the water. A profusely illustrated article on the designing and building of a war-ship appeals to the interest taken by all in the new navy, and a thrilling description of a naval combat under the significant title: "The Meloban and the Pentheroy" describes, after the manner of the Battle of Dorking, a possible sea-fight, the outcome of which is watched by the entire naval world. "Gliding Flight" is an interesting contribution to the problem of aerial navigation by one who has studied the flight of soaring birds in the East for twenty years. Elaine Goodale, who married a member of the Sioux nation, has some interesting information of Indian Wars and Warriors. T. C. Crawford, the Washington correspondent, gives the first half of a startling story, under the title of "The Disappearance Syndicate." The poetry in this number by Sir Edwin Arnold, Graham R. Tomson and William Young, is unusually good. The departments, "In the World of Art and Letters" and the "Progress of Science" continue to have as contributors men famous in both continents.

The February Number of Godey's Magazine

appears in a new and most attractive cover, and with many innovations and improvements in the inside of the *Magazine*. In every respect this number is the most attractive ever issued by the Godey Publishing

Company. It has a choice and varied contents, the opening article, "How to Make Money in Wall Street," being from the pen of Henry Clews. There are the opening chapters of a novel, "This Man and This Woman," by Margaret Lee, with illustrations by Paul Nimmo Moran; a short story, "The World's Gain," by Henry Milford Steele; "Superstitions of the English Miner," by S. P. Cadman; "Feroline," short story, by Lucy C. Lillie; "The Valley of Roses," by Prof. A. L. Rawson; "The Royalty of Hawaii," by Herbet Stanely Renton; "American Women in Mexico," by Marie Robinson Wright; "A Tragedy Pro-Tem," short story, by James Clarence Harvey; "A Begging Letter," a farce, by Anna Robeson Brown, with short sketches, numerous illustrations, and poems by Louise Chandler Moulton, Clinton Scollard, Richard Burton, Henry Tyrrell, Marie Frances Upton, A. L. Donaldson and others. Florence Hull conducts the Home Department, Stella G. Florence's name appears as fashion editor, and there is a new department for Our Boys which ought to attract universal attention.

Flint (A.) on Treatment of Fermentative Dyspepsia with Subgallate of Bismuth.

Dr. Flint states that in nearly every case of functional dyspepsia under his observation within the last ten months he began treatment by giving five grains of bismuth subgallate, either before or after meals. In some cases it seems to act more favorably when given before meals, and in others its action is better if taken after eating. Salicin he has often found to prove satisfactory. The proportion of unsuccessful cases was about twenty-five per cent., but in some cases the effects of this remedy when given alone have been remarkable. The bismuth subgallate, however, is almost a specific in cases of purely functional dyspepsia with flatulence. He has used bismuth subgallate since December 8, 1892, and reports but two cases where no relief was noticed. Both of these cases were in hysterical women. He first used the remedy in a case of dyspepsia of eleven years' standing with excellent results.

The following are a few of the cases of remarkably prompt and favorable action; A case of alcoholism of twenty years' standing, with habitual dyspepsia for the last five or six years; bismuth subgallate gave almost instant relief. The flatulence and distress disappeared in twenty-four hours, and did not return, except in a very mild degree, when they were usually relieved by a single dose. A case of dyspepsia of four's standing, with a chronic diarrhoea, was entirely cured in five days by the use of subgallate of bismuth alone. In this case, the trouble returns every few weeks and is relieved by two or three doses. He prescribes it in the tablet form, each containing five grains.

During the treatment of the cases patients are simply directed to avoid excesses in food and drink, and to eat little or no pastry or sweets.—*N. Y. Med. Jour.*

CURRENT LITERATURE REVIEWED.

IN CHARGE OF ELLISTON J. MORRIS, M. D.

THE BUFFALO MEDICAL AND SURGICAL JOURNAL

for February.

An editorial on Symphyseotomy gives a short history of the operation, states that it has been employed during the past year by nearly every obstetric surgeon in the larger cities of America, and concludes; that while it cannot displace Cæsarean section in cases of extreme pelvic deformity, yet it may do so in cases with a useful diameter between six and seven and five-tenths centimeters.

The operation is described, and declared more easy, but probably not less dangerous, than Cæsarean section, and to be performed only by skilled surgeons. No reason, except easy performance, is advanced for preferring it to section.

A Letter from Mr. Lawson Tait criticises a paper by Dr. F. Byron Robinson, under the title

What Kills After Laparotomy, Anæsthetic, Nephritis, or Infection?

Except for incisions in the flank the term laparotomy is objected to.

The author describes his discovery that ether stops, during its administration, the secretion of urine; while chloroform has not such action. Renal and pulmonary lesions, he says, leading to death, may be due to the use of ether.

Degenerative kidney changes are a frequent accompaniment of abdominal tumors of all kinds; but even when known to be present do not prevent his operating, but cause him to use chloroform. Cases are cited confirming his stand.

He does not think experiments on animals sufficient ground for treatment of human beings, and shows how the public sentiment, combined with the different inquest laws of England and Scotland, lead to the use of ether in the former and chloroform in the latter country.

He now uses, and so far with perfect satisfaction, a mixture of chloroform and ether, varying from one-third chloroform in the young to two-thirds for those forty years of age, or more. He calls this "ether mixture" and follows rigidly Simpson's directions for administering anæsthetics.

Dr. Marcell Hartwig read before the Buffalo Academy of Medicine a paper on

Prostatic Disease With Special Reference to the Prostate of Old Age.

He states that in spite of modern methods, operation for prostatic hypertrophy has resulted in very little benefit in most cases, and then, claiming little personal experience, gives a synopsis of the treatment of various authorities, and decides that so long as a man can completely empty the bladder by a catheter, operation is not called for; but as soon as he leaves some residual urine, an operation is necessary or cystitis, uremia, and finally, death will result.

Supra-pubic cystotomy seems to be the choice of the author, but he is by no means enthusiastic in recommending it. The experiments of Dr. White are mentioned as proving the fact that atrophy of the prostate follows castration, or ligation of the vasa deferentia.

A very interesting discussion followed, in which most of the participants seemed to regard supra-pubic cystotomy advisable without delay, when cystitis threatened, or it became impossible to completely evacuate with a catheter.

Some of the speakers had operated successfully and a case was cited where a hard rubber tube was subsequently worn for several years, giving great comfort.

In regard to the opinion of Dr. White, doubt was expressed whether castration or ligation of the vasa deferentia would give relief to those elderly men to whom the testes were almost, or quite, inactive; as it was very improbable that any one would permit such interference at an early date, before the pain and obstruction became severe.

The prompt effect of a twenty per cent solution of antipyrin in stopping hemorrhage from the bladder was mentioned. Its use had been suggested by its known effect in epistaxis, etc.

The remaining paper, by Dr. W. A. Crockett, is entitled

Observations on the Results of Removal of Diseased Uterine Appendages.

Accompanying the paper is a table of thirty cases, showing the reason for operating and the condition before and after each operation.

The author does not claim to cure every case in the sense of completely rejuvenating her, and leaving her without ache or pain, and complains of those opposed to the operation denouncing it because this is not done. No other surgical procedure, he says, is subjected to such a test. His results have been good, though, and the symptoms complained of relieved.

The causes preventing perfect cure he classes under the following heads:

Ventral hernia, which is apt to follow in cases where a drainage tube is used.

Lack of skill and judgment on the part of the operator.

Neglect of treating all the disease. The author thinks endometritis exists in every case of salpingitis, and every uterus should be curetted before excising the tubes and ovaries. Every displaced uterus should be replaced.

The impossibility of leaving the pelvis in absolutely normal condition. Where raw surfaces are left, there will be some adhesions.

Affection of other organs, dependent or independent of disease of the pelvis. The ultimate results of this operation are influenced very largely by the effect of long standing tubal disease. on other

organs, particularly the nervous system. When refractive troubles in the eye are corrected by glasses, the headache, due to them, does not instantly disappear, and a similar condition exists here, the focus of irritation is removed, but its effects pass away slowly.

Effect of long suffering and treatment (on the patient's morale). The patient becomes morose and has a habit of magnifying every ache or slight pain; which makes her statements worthless.

Patient's subsequent occupation and condition of life: Many follow occupations which would be exhausting to a perfectly healthy person.

Besides having seen little good result from electricity, the author states that none of his patients could afford the tedious six months' or year's treatment which electricians require. The author sums his argument as follows:

Each case must be judged on its own merits and surrounding circumstances. There is no one form of treatment which will guarantee a cure.

Salpingo-oophorectomy stands on the same level as any other surgical procedure, and its results are influenced by a variety of elements which may play a part after any surgical method of treatment.

The results of salpingo-oophorectomy are sufficiently encouraging to justify its performance after milder methods have failed.

The most serious mistakes a physician can make are: (a) continuing local treatment after such a course has proven worthless; (b) making too positive assertions as to the favorable result of treatment.

THE CHARLOTTE MEDICAL JOURNAL

for January. Dr. J. Wellington Byers contributes a paper on

The Antiseptic or Rational Treatment of Typhoid Fever.

advocating the use of calomel and the cold bath in the disease. His plan is to administer at the beginning of the attack small doses, sixth of a grain, of saccharated calomel, combined with bi-carbonate of soda, every hour till the bowels have been freely evacuated. This is repeated every day, or every other day, during the first ten days' sickness, as the indications demand, unless diarrhoea supervenes, when the remedy is suspended for a time. The author states that it is exceptionally rare to have a diarrhoea at this stage of the disease when calomel is employed in this way. Under this treatment he finds that the functions of the stomach are more properly performed. The tongue is clean and moist, there is absence of tympany, the secretions are open with perfect glandular action—a series of circumstances in which it is quite impossible to have diarrhoea. The author states also that there is no danger of salivation from its use in this way. It does not produce hypercatharsis, or does it induce asthenic conditions, as is generally believed. To the contrary it is a gentle and true tonic, which promotes activity of the mucous membranes and glandular organs, hastens the elimination of morbid substances in the tissues

and circulation, and through these influences brings about a high state of cell activity, and the vital resistance of the entire organism is augmented. In addition to those general physiological actions it possesses antiseptic properties of undoubted value. The author is quite certain that it will lessen and prevent a large proportion of the pyrexia which usually accompanies this disease when treated by methods which fail to recognize and modify the seat of and cause of the fever. In the author's cases, ranging in ages from six to sixty years, the fever rarely reached a maximum of 103°, and when it did, it was in every instance promptly controlled by the exhibition of the remedy. The author believes that by the use of calomel in this way we avoid stupor and delirium, which are largely attributable to toxæmia, lessen the liability to the presence and inroads of the pus-producing cocci in the later stages, prevent ulceration and hemorrhage, and remove one of the most potent sources of death.

Dr. E. C. Boyte reports a case of "Superfoetation." The patient was delivered of a healthy female child at term and with the placenta was expelled a fetus of three or three and one-half months, contained in a separate sac, which at the placenta margin seemed to be attached to that of the fully developed child by a substance resembling the gelatine of Wharton. The placenta and fetus were in a healthy condition, and the circulation was independent, there being no anastomosis between the vessels.

Dr. Archer Atkinson contributes a paper on "Fistula in Ano," advocating the use of the elastic ligature in the treatment.

John J. Caldwell contributes a Review of Recent Electro-Therapeutics and Electro-Surgery. [Judging from the tone of the paper, electricity is the cure for all diseases. The author speaks of a new instrument, which he names the phonoplant and which, when applied to any part of the body, will instantly indicate the condition thereof by certain sounds or movements. The author does not describe this wonderful instrument and states that "so far we have not deemed it best to present an illustration of my phonoplant instrument."—Ed.]

THE ANNALS OF GYNÆCOLOGY AND PÆDIATRY.

for January. Dr. Howard A. Kelley in a paper on

The Diagnosis of Pelvic Inflammatory Diseases,

presents the following conclusions:

(1) The history of the patient, associated with pain in the ovarian regions produced by deep abdominal or vaginal palpation, cannot *per se* establish a diagnosis of pelvic inflammatory disease.

2. An attempt to make a diagnosis without directly palpating the pelvic organs is at best but more or less clever guess-work.

3. The diagnosis can be made with certainty when resisting masses are felt choking the posterior half of the pelvis at the sides and behind the uterus.

4. It is possible in this way sometimes to mistake a retroflexed fundus, an extra-uterine pregnancy or a myoma, for inflammatory disease. This error on the part of the general practitioner, however, is in the right direction, calling for a more exact investigation or consultation with a specialist, and is therefore not detrimental to the patient.

5. For a more delicate appreciation of the exact condition of the pelvic organs, and in many cases in order to make any diagnosis at all, a bimanual examination by rectum and abdomen under anaesthesia is necessary.

6. The writer's trimanual method of examination by rectum, vagina and abdomen, is the most accurate of all, serving to detect the slightest irregularities of the uterus and ovaries, as well as the most delicate adhesions.

Dr. William Goodwell contributes a paper on

The Effect of Castration on Woman,

in which he states that his experience would lead him to the conclusion that, in the majority of the women who have been castrated, the sexual impulse, soon abates in intensity, much sooner than after a natural menopause, and that in many cases it wholly disappears.

He also believes that the death-rate from chronic diseases of the appendages is greatly overrated, so much so that, in his opinion, more deaths result from the operation of removing the tubes and ovaries, in the hands of even the most successful gynaecologists, than from the disease itself. In his experience, after the patient has safely passed through the acute stage of the inflammatory attack, her life is in very little danger.

The life of a woman with one damaged appendage is in greater danger than the life of a woman with both her appendages diseased on account of the liability of the old inflammation being relighted by parturition. The author believes that a surgical operation is not always necessary to cure the ill-health of a woman whose appendages are diseased, and he goes further and asserts that even cases with all the subjective and objective symptoms of ovarian or tubal abscess have been cured by him by means of massage, electricity, local applications and general tonics. In a very few of these cases conception occurs. When driven to operation, the author advocates removal of the diseased side only, unless the menopause has been established already, or unless a good reason obtains for hastening it on. Should both ovaries be intrinsically diseased and their tubes contain pus, he would always remove both uterine appendages in their totality no matter what the age of the patient might be. When the pus is limited to the tube he would leave the ovary after breaking up all adhesions, or, at any rate he would leave some of the ovarian stroma in order to avoid the sexual changes resulting from the enforced menopause. Should the uterine appendages be merely adherent, and not intrinsically diseased to any extent, he would, as a rule, during active menstrual life, release them, and, perhaps, extirpate the worse of the two, but not both of them.

In regard to the removal of the appendages for the cure of insanity and epilepsy, if the insanity is limited to periodical outbreaks, strictly ovarian in their character, and with the menstrual flux as a storm center; if the epileptics are preceded by an ovarian aura—that is to say, if they pivot around the monthly period, and appear at no other time—the removal of the appendages, by suppressing a pernicious menstruation, usually will bring about a cure in either disease. But when these organs are extirpated merely as a panacea *per se* for these disorders, irrespective of their ovarian origin, the operation affords no relief. The author is inclined to advocate the castration of the insane of both sexes for the prevention of the spread of insanity.

Dr. A. W. Johnston discusses the

Aetiology of Dermoids of the Ovary and Testicle.

The conclusion which he arrives at are: First, that embryology is the proper field in which to study dermoids, and it is in the formation of the ovum itself, and not during its stage and in the manufacture of the individual, that we must expect to find this fault. Second, that no practical use has yet been made of the well-known fact that up to a certain point we are all protozoa, just as well as in the later stages we become amphibians and such like. Third, that it is in the study of this protozoic age that we must expect to find the seeds which result in the formation of dermoids. Fourth, that the author's studies accentuate the fact that a human being in its development passes through all the stages of animal life, from the lowest to the very highest, and that a failure to pass from one stage to the next highest is sure to leave its imprint in the shape of a pathological condition.

Dr. George S. Peck contributes a paper on

Extra-uterine Pregnancy,

reporting five cases. One case is of interest on account of the division of the lumen of the fallopian tube into three, one of which ends in a cul de sac, the other two coalescing further on. The pregnancy, however, took did not take place in the closed part of the tube. All five cases recovered, with the exception of the fifth who was in collapse when operated upon and died on the table in spite of the use of large doses of digitalis, whiskey and strychnia. The paper is illustrated by photographs of the specimens removed.

Dr. L. J. Hammond also reports a case of "Extra-uterine Pregnancy at three months."

Dr. W. J. Hunter Emory reports a case of "Floating Kidney—Nephropexy." The sutures were removed on the sixth day. Union by first intention throughout. Temperature never rose to 100°. Some months have now elapsed since the operation, and the kidney remains *in situ*, the patient wonderfully improved in general health and doing general housework.

This issue of the journal also includes an abstract of a paper by Dr. A. Margen Cartledge, entitled "Is Operation Demanded in All Cases of Appendicitis not barred by surg-

ical limitation should be operated upon. The best time, provided the symptoms are not too urgent, is after the bowels have been thoroughly moved.

In the Department of Pædiatry Dr. Merrill Ricketts discusses

Excision of the hip-joint in Tubercular Disease.

The author, in regard to the reason for entering the joint, gives the following: First, acute suppuration, bony or synovial, origin due to any cause. Second, acute tubercular suppuration. Third, arthritis, non-suppurative, but generally occasioning great pain, or

deformities by other means. In number one and two resection is the vital indication. Number three not so important; let alone except to walk orthopædically. Do not remove the head for simply synovial fluid or marginal ostitis, or osteo-myelitis of head of bone, but in cocco-femoral articulations, involved by suppurations, the head should be removed.

The remaining article in this issue, "Surgical Shock" by Dr. Charles P. Noble, has already been published in THE MEDICAL AND SURGICAL REPORTER for January 20th, 1884, page 80.

PERISCOPE.

MEDICINE.

Brannan (J. W.) on Quinsy and its Treatment by Early Incision.

The author's studies tend to confirm a fact which has long been accepted by most laryngologists, viz., that the operation of opening a peritonsillar abscess is attended with no danger if properly performed. They also emphasize the necessity of early evacuation of pus, lest ulceration of an adjacent artery may take place. He offers the following conclusions:

1. In quinsy, the inflammatory process is usually situated without, and not within, the tonsil.
2. If pus forms it should be evacuated at the earliest possible moment.
3. Unless there are signs of pointing elsewhere, the incision should be made through the soft palate directly backward.
4. If the tension of the parts is very great, the incision is indicated, even though pus has not formed.
5. If ordinary surgical care is exercised, there is no danger of wounding the internal carotid artery.
6. In cases of deep-seated inflammation, in which the pus comes to the surface slowly, erosion of the arteries in the neighborhood may take place. In such cases, therefore, we must be ready to deal with arterial hemorrhage at the moment the abscess discharges into the pharynx—*Med. Record.*

Morrison (F. H.) on a New Physical Sign for the Early Diagnosis of Croupous Pneumonia.

In several cases recently seen where the general symptoms of pneumonia were present, but none of the ordinary physical signs, I have discovered what I am venturing to describe as a new physical sign. On careful auscultation of the chest I have heard jerky expiration over a limited area, and on noting the position of this area have found developed in it subsequently the usual signs of pneumonia. This jerky expiration is the first physical sign developed, and can be heard

soon, if not immediately after, the rigor, before dullness or crepitations appear. It is much more distinct in children, but I have also heard it in adults. The following cases sufficiently illustrate what I wish to point out, though I have notes of several others: 1. A girl, aged four years, was first seen by me about 9 P. M. on April 29th of this year. Her mother stated that she was seized with a shivering fit about 12.30 P. M. on the 28th, having been previously quite well. Her hands were cold and she was drowsy and thirsty. There was pain in the limbs in the afternoon and her breathing was short. She became delirious about 9 P. M. When seen by me on the following day her breathing was very rapid. She had a slight cough and a very quick pulse. The temperature was 104° F. Except that expiration all over the right base was markedly jerky, nothing abnormal was found in the chest. On the 30th her temperature was 102°. The physical signs were the same. On May 1st there were slight dullness on percussion and fine crepitation over the right base. The pneumonia ran a normal course and the patient made a good recovery. 2. A young man, aged twenty, was first seen by me on April 3d of this year. He complained of pain in the right side and shortness of breath. On April 1st he became very heated whilst playing at football, and during the following night he had a rigor. His respiration was rapid, the pulse was quick, and the temperature was 103.4°. Except for jerky expiration at the right base posteriorly there was nothing abnormal on examination of the chest. Pneumonia was diagnosed at the right base. This was subsequently verified by ordinary physical signs. The disease ran a typical course, although convalescence was somewhat prolonged—*Lond. Lancet.*

The Biological Treatment of Enteric Fever.

Though the principle upon which is based the treatment of certain diseases by means of the products of the vital activity of animal or vegetable organisms may seem dubious;

though, as with tuberculin, the subsequent outcome may be very disappointing and different from what had been hoped; though the explanation of the action may be wanting; though the result may seem chimerical, sufficient data have now accumulated to encourage investigation in this new field of therapeutics and to bespeak for it scientific consideration. The sixteen cases or more of tetanus reported as cured by the tetanotoxin, the many cases of myxoedema (and from recent reports some cases of psoriasis) said to have been vastly improved or cured by treatment with some preparation of the thyroid gland, the experimental and clinical work of the Klemperers and others with pneumonia, the work of Haffkine and others with cholera—all these afford some evidence of the practical value of the method, and encourage the hope that the principle upon which it is based may be applicable to many other diseases than those already named. We have already on several occasions discussed this subject in these columns, and have no wish to enlarge upon it now.

It is our present purpose to call attention to the valuable and reliable work of Eugene Fränkel and Th. Rumpf (*Deutsche Medicinische Wochenschrift*, 1893, No. 41, pp. 985, 987), at the New General Hospital of Hamburg, in connection with the treatment of enteric fever by means of sterilized bacilli of enteric fever and pyocyaneus-bacilli respectively, the report of which is couched in language at once conservative and assuring. The mode of procedure and the results in the two sets of observations were so nearly identical that we can speak of both together. Bouillon prepared from the thymus gland of the calf was inoculated with organisms of an ordinary degree of virulence and placed for three days in a thermostat kept at a temperature between 96.8° and 98.6°, and then sterilized by boiling for about twenty minutes in a water-bath at a temperature of 145.4°. Of this solution about eight minims (0.5 c. c.) were injected into the gluteal region as soon as the diagnosis was made. No noteworthy change was observed to follow, and upon the following day about sixteen minims (1 c. c.) of the fluid were injected into the other gluteal region.

This second injection was usually followed by slight elevation of temperature, sometimes attended with chilliness or a chill. On the third and on the fourth day a notable decline of the temperature was observed, together with free but not depressing diaphoresis. If at the end of this time the temperature manifested a tendency to rise, another injection of a larger quantity (2 c. c.) of fluid was given, and in this manner the treatment was continued, the dose being progressively increased.

In addition to the influence upon the pyrexia, the flow of urine was notably increased, diarrhoea was favorably influenced, and the general condition was improved. The result was the better the earlier the case came under observation. Complications and death were not invariably averted, nor relapses prevented, but the course of the attack

was in most cases favorably modified and its duration distinctly shortened.

The results, on the whole, were eminently satisfactory. Of the thirty cases treated by Rumpf with cultures of dead pyocyaneus-bacilli, there were but three deaths. Fränkel promises to give at another time a detailed report of the fifty-seven cases treated by him with cultures of dead bacilli of enteric fever. Surely we cannot ignore the value and the importance of these observations, and the hope is certainly justified and the results recorded may be confirmed and extended by those of other observers. — *The American Lancet*.

Diphtheria.

In *The New York Polychinc*, Dr. L. Emmett Holt writes substantially as follows on the subject of diphtheria:

In the treatment of diphtheria the first thing is isolation. The poison is given off particularly in the discharges from the nose and mouth, probably not from the breath. Handkerchiefs or towels should not be used for the nose, but absorbent cotton or bits of old muslin which can be burned immediately.

All the latest researches upon the subject of diphtheria point directly to the fact that the disease is first local, and afterwards constitutional. It is our duty then to attack the local disease on the tonsils energetically with the hope that the process may be arrested. Many plans have been suggested for this, such as Dr. Seibert's submembranous injections, the use of the galvano-cautery, and the local application of strong germicides, such as 1-250 bichloride, Monsel's solution, and hydrochloric acid. My own preference is for the last mentioned.

B Hydrochloric acid 1 part
Glycerine 3 parts

This is to be used as follows: A swab made by twisting absorbent cotton upon a splinter is saturated with the solution, but not so as to drip, and while the tongue is depressed, it is applied to the tonsils with a rotary motion. A second swab is to be used for the opposite side, and a fresh swab for each application, all being burned after using. This should be repeated in cases like the one before us once in four or six hours for the first day, afterwards once in six or eight hours for three or four days, while the disease tends to active spreading, and after that less frequently.

The advantages of the hydrochloric acid are that it is a powerful germicide, that it produces a good deal of disintegration of the membrane, that its effects are easily limited, and the sound parts are not unfavorably affected by it. We use the strong acid, and not the dilute form. When I began using it, I felt a little timid about using so strong a solution, having recently had a very extensive experience with it in a hospital epidemic, where during the past two months we have treated thirty-two cases. I believe we need have no hesitation in using so strong a germicide. A swab is always to be preferred to a brush for making such applications, since

with a brush the solution is likely to drip and injure adjacent parts.

In addition to these germicidal applications, and the earlier they are begun the more useful they are, the pharynx is to be kept clean by the hourly use of a gargle in children who are old enough to do this, or in younger infants by syringing the mouth, or swabbing with some weaker solution. For cleanliness we may use Dobell's solution, Seiler's solution, or bichloride 1-5000 containing 1 glycerine. These applications are not expected to do more than to keep the parts clean.

There is no call for nasal syringing in a case like the one before us. It is, however, to be begun in every case as soon as nasal discharge appears, whether there is visible membrane in the nostrils or not. This should be done with a small glass syringe, having a soft rubber tip, repeated every hour during the day, and every two hours during the night, without taking the child from his crib. Any of the three solutions mentioned above may be used for the nose. The addition of glycerine to the bichloride solution renders it less irritating.

What internal treatment shall we employ? None whatever excepting stimulants. We have no specifics for diphtheria, and after a thorough trial of most of the drugs recommended for use. I have abandoned them all, having become convinced that none of them have any special influence upon the course of the disease.

How soon shall stimulants be begun? This is a question which must be decided in each individual case. In some cases it must be begun on the first day; in others on the third day; in some not until the sixth day, and in some not at all. In diphtheria as in other diseases the best guide to the time for stimulation and to the amount of stimulants called for, is the patient's general condition and pulse. It is, I believe, a mistake to stimulate every case of diphtheria from the outset, in order to anticipate heart failure late in the disease. However plausible this may appear in theory, in practice I believe it to be very much inferior to the plan of withholding stimulants until they are indicated by the patient's pulse and the heart's action, when they should be pushed until the desired effect is produced.

For the swollen lymphatic glands no treatment is necessary unless they are very tender and painful, then use hot applications rather than cold. These glands rarely suppurate in diphtheria—never, I think, unless the process in the throat is one of a mixed infection.

There is one other means of treatment of which I wish to speak, although not called for in this case, and that is calomel fumigations in laryngeal diphtheria. This was first introduced by Corbin, of Brooklyn, and its very great value is now admitted by everyone in New York who has had opportunity to see them applied. Next to intubation I believe this to be the greatest advance in the treatment of diphtheria during recent years. Ten grains of calomel are vaporized

over an alcohol lamp every two to four hours, the patient being kept in a close tent, made of sheets about his crib. This is to be begun as soon as laryngeal symptoms appear. In bad cases calomel fumigations may be used every hour. In the last epidemic to which I have referred three laryngeal cases, and two of them severe ones, were cured by this method without operation. In one of these I have reason to believe there was membrane in the trachea as well as in the larynx.

To summarize in a few words our treatment of diphtheria, the indications are:

- (1) Germicidal treatment, preferably by the use of strong hydrochloric acid; used early to be effectual; especially valuable in cases beginning upon the tonsils.
- (2) Local cleanliness by the free use of a weak antiseptic solution in the pharynx.
- (3) Nasal syringing with the same solutions in every case where there is nasal discharge.
- (4) Alcoholic stimulants begun as soon as the first systemic effects of the poison are seen, and in very severe cases pushed to the point of tolerance.
- (5) Calomel fumigations as soon as laryngeal symptoms appear.
- (6) Intubation in laryngeal cases not relieved by fumigation.

SURGERY.

Operative Treatment of Peritoneal Tuberculosis.

The *Boston Medical Journal* says: The value of operation in the treatment of peritoneal tuberculosis in children has been much disputed and even yet is by no means generally allowed. The numerous cases benefited by laparotomy have been challenged as to correctness of diagnosis and the indications which were believed to predict a favorable result. The report of Conitzer* of seven cases operated upon for tuberculosis of the peritoneum throws some light upon the points in dispute.

The children varied from two and a quarter to nine years old. Four cases were of the exudative form in which there was a diffuse superficial inflammation of the peritoneum, with numerous very small tubercles upon the parietal and visceral membrane, and free serous fluid in the abdominal cavity. In all of these cases there was but slight disturbance of the general health. Some anorexia and heaviness and disinclination to move about were the chief symptoms. Some of the patients, too, had gray-colored stools, though not otherwise icteric.

The other three cases were of the dry adhesive form in which there was more general disturbance and often pain, and a considerable degree of matting together of the intestines and omentum.

The operation consisted only of an incision into the abdomen, and, after allowing the free fluid to escape, closing up of the wound. No washing or manipulation of the cavity was done in any case.

**Deutsche Med. Wochenschrift*, No. 29, 1893.

The four exudative cases all made a lasting recovery. In each, microscopic examination of the tissue showed characteristic tubercular structure, giant cells and in two cases the presence of bacilli. The three other cases all showed caseous tubercular nodules with bacilli. One case recovered from the operation and after four and a half months was still relieved from much of the pain and discomfort, though not at all well. The other two cases died with little or no relief.

After discussing these cases in detail he draws the following conclusions:

1. Peritoneal tuberculosis is spontaneously curable; the dry form in very few, the exudative form in a very large number of cases.
2. All forms may be cured or at least relieved by laparotomy, even when other treatment, including puncture, has failed.
3. The results of the operation depend upon (a) the form of the disease, the best results being obtained in the cases of effusion; (b) the duration of the illness; (c) eventual complications.
4. The operation is contra-indicated in advanced diseases or those with marked tuberculosis of other organs.
5. No explanation can be given of the reason or manner of the curative effect.

NEWS AND MISCELLANY.

George W. Childs.

No private citizen of this world has been more widely known or more highly appreciated among all classes and conditions of men than George W. Childs. Philadelphia sat in sorrow nearest his bier, but all our great cities, the country at large and the world feel his loss. Everywhere the press and pulpit emulate each other in sorrowful, yet grateful tribute to his memory.

The public is familiar with the brief record of his exodus. January 18th, he suffered from an attack of vertigo, which was almost immediately followed by paralysis. The tenderest affection and the best medical skill watched over his prostrate form and did all that both could suggest for his recovery, and the intervention of Infinite love and power was invoked in churches of all faiths, Jewish and Christian, Catholic and Protestant. But the course of nature and the Supreme will disposed otherwise. He passed away in the early morning of February 3d, and his remains were laid to rest beside those of his friend, Anthony J. Drexel, who preceded him by just eight months.

A facile pen, that of the Rev. George Dana Boardman, briefly sketches his character and career thus:

"Exemplary in life, high in ideal, steadfast in pursuit, conscientious in method, successful in accomplishment, just in dealings, truthful in engagements, charitable in judgments, strong in convictions, courageous in expression, gentle in manner, chivalric in journalism, enthusiastic in friendship, public-spirited in citizenship, boundless in charities, cosmopolitan in range, contemporaneous in gifts, architectural in career—in brief, Christian in character,—himself is his own best monument; his tributes to the great and

his gifts to the poor being his own memorial windows.

The Anti-Dispensary Party win the Day in New York.

Monday night the 15th ult., the most exciting election ever held by the New York County Medical Association was witnessed.

There were three candidates in the field running for president; and singular to say, they were all objectionable, though in varying degrees.

Dr. McLeod's candidacy was distasteful because he had been president three successive years; and, it was righteously felt that it was time for him "to step down and out," and make room for some ambitious aspirant from the younger crop.

Dr. Tucker Harrison, another candidate, though, like Dr. McLeod, admired and respected by all the members, yet had been president in the near past, and it was thought best not to further encourage him to seek presidential honors.

Those two honored veterans were confronted by a young man quite unknown in New York, Dr. Ferdinand Valentine, who was a member of the association but two years, but he proved that he was not wanting in fighting metal, and gave his opponents all they could do to prevent themselves from total annihilation.

On the night of the election the Valentine faction, which came in great force, and moved compactly, had hustling about the city, in every direction, while the rain fell in torrents, several coaches and cabs, to bring in the lame, the aged and the invalid.

The McLeod columns well compared with the magnitude and solidity of the Valentine forces. Rumor was now scattered, that Valentine had been a homeopathic physician; that he was yet an "unrepentant sinner;" that he and his faction only wanted to make the association an annex to another polyclinic, which New York is threatened with; that they were the same gang of specialists that brought disaster, disunion and ruin into the ranks of New York physicians ten years ago.

This item of news, which, however, contained more truth than poetry, produced a smiting effect among those who had come to push on the young candidate.

Now that they were not to be worsted, they resorted to new tactics, and charged Dr. McLeod's manager, the candidate for vice president—Dr. A. D. Ruggles—with treachery and treason. A motion to put him on the rack was pressed by Dr. W. R. Pryor; but the president prudently choked him off, on a rule of order, and the balloting went on.

It was nearly midnight when the polls closed. On the first ballot McLeod, closely pressed by Valentine, came out first. Harrison was only third, though the Southern vote was thrown almost for him.

Now, as no candidate had a majority, a second ballot was cast, when the Harrison men, almost in a body, went over to McLeod, when he secured a majority; though, to the last closely forced by Valentine.—*Times and Register*.

SCIENTIFIC AND BUSINESS PLATFORM.

We respectfully invite the attention of physicians and pharmacists to a brief statement of the ethical, scientific and business principles upon which we strive to base our operations as manufacturing chemists. We shall be pleased to communicate with any member of either profession who may desire further literature in amplification of any or all of these principles, and cordially invite such correspondence.

We hold that the manufacturing pharmacist who desires the patronage and values the respect of the physician, should study and conform to those principles of medical ethics which affect the production and marketing of medicinal preparations, therefore:

A. We strive to maintain the highest standard of quality.

Our facilities for securing crude drugs of first quality are unequalled; our processes of manufacture are the latest and best approved; and the highest degree of skill is employed at every stage. Wherever the nature of the drug will permit, the strength of every preparation is determined by repeated assays, from the acceptance of the crude material to the finishing of the product for the pharmacist's shelves. Under other conditions the product is made to conform to some physiological or other recognized test to ascertain its therapeutic efficiency.

B. We do not market any preparation protected by copyright, patent or trademark, or by concealed or misrepresented formula.

Please apply to us for literature fully explaining the distinction between these several classes of proprietary preparations, and demonstrating their respective objectionable features.

C. We do not so label or advertise our products as to encourage, or admit of, their use by the public without the advice of the physician.

Any physician who has seen a former patient purchase for himself, and without a doctor's advice, a remedy labeled with the disease which it is designed to cure or alleviate, with full directions as to dose, etc., and which he himself had prescribed on a previous occasion, will appreciate the bearing of this principle upon his purse and reputation.

D. To the end that the product, and the art of its manufacture, may never become lost to science, every medical preparation should have a proper name, open to a general scientific usage, and its formula should be published in scientific literature in such a manner that any competent pharmacist may readily prepare it.

Many articles claiming to be pharmaceuticals cannot be admitted to the Pharmacopoeia, or accepted in scientific literature, for the reason that the names are claimed as private property, and their formulas, or art of manufacture, are nowhere published, but are things of trade secrecy. Our processes and formulas are open to the inspection of all properly interested persons at any seasonable time, and any pharmacist may market any of our preparations under its proper name, if only the same be not represented as of our manufacture.

E. We hold further that the manufacturing chemist should lend his superior resources to the advancement of both medical and pharmaceutical science; that he ought not to act altogether from a selfish pecuniary motive, but should have in view the general well-being of humanity and, as tending to this end, the continued progress of medicine and pharmacy.

In pursuance of this belief, we have expended large sums in therapeutic, physiological and chemical research; employed able botanists in exploring the habitats and studying the characteristics of new drugs; promoted exhaustive physiological experiments to determine the most available form of preparation; and have then placed, free of cost, at the disposal of the medical profession, samples of the same for clinical experimentation, until the medicinal value was ascertained. Where no therapeutic worth was found, the drug has been relegated to deserved oblivion; yet as the outcome of our individual efforts, the medical profession now has such valued remedies as: *Cascara sagrada*, *Grindelia robusta*, *Jaborandi*, *Coca*, *Jamaica dogwood*, *Black haw*, *Berberis aquifolium*, *Chenopium*, *Pichi*, and others.

Basing our claims to the consideration of the physician and pharmacist upon the foregoing statements, an investigation of the truth of which we earnestly solicit, we remain,

Yours very truly,

PARKE, DAVIS & COMPANY.

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